KENWOOD

MICRO HI-FI COMPONENT SYSTEM

HM-V655MP

INSTRUCTION MANUAL

KENWOOD CORPORATION

COMPACT
disc
DIGITAL AUDIO

COMPACT
disc
DIGITAL VIDEO

Before applying power

⚠ **Caution : Read this page carefully to ensure safe operation.**

Units are designed for operation as follows.

U.S.A. and Canada .... AC 120 V only
Australia .... AC 240 V only
Europe and U.K. .... AC 230 V only

China and Russia .... AC 220 V only
Other countries .... AC 110 - 120 / 220 - 240 V switchable*

For the United Kingdom

Factory fitted moulded mains plug

1. The mains plug contains a fuse. For replacement, use only a 13-Amp ASTA-approved (BS1362) fuse.
2. The fuse cover must be refitted when replacing the fuse in the moulded plug.
3. Do not cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adapter, or consult your dealer.
If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT : The wires in the mains lead are coloured in accordance with the following code:
   Blue : Neutral
   Brown : Live

Do not connect those leads to the earth terminal of a three-pin plug.

* AC voltage selection

The AC voltage selector switches on the rear panel are set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting positions of these switches match your line voltage. If not, they must be set to your voltage in accordance with the following direction.

AC voltage selector switches
Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

AC 220 - 240V ~

AC 110 - 120V ~
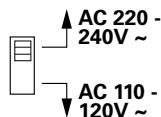
Note : Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautions

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

⚡ **CAUTION** RISK OF ELECTRIC SHOCK DO NOT OPEN ⚠	CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
⚡	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
⚠	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

The marking of products using lasers (For countries other than U.S.A., U.S.-Military and Canada)

**CLASS 1
LASER PRODUCT**

The marking of this product has been classified as Class 1. It means that there is no danger of hazardous radiation outside the product.

Location : Back panel

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

Inside this laser product, a laser diode classified as Class 3A laser radiation is contained as alerted by the internal caution label shown above. Do not stare into beam or view directly with optical instruments.

Location : CD laser pick-up unit cover inside this product

Special features

This unit can playback CD-DA, VIDEO CD and MP3 file.

Playback capability of CD-R and CD-RW discs

This unit can playback music data recorded in CD-R (Compact Disc Recordable) and CD-RW (Compact Disc Rewritable). However, some CD-R and CD-RW discs may not be playable on the CD player depending on the recording characteristics of the recording equipment (including the pick-up), properties of the CD-R or CD-RW in use, its recording condition and so on. Also note that a CD-R or CD-RW disc which has not been finalized cannot be played back.

Playback capability of MP3 files

This unit can playback disc media containing MP3 files.
However, some disc media may not be playable on this CD player. Also note that MP3 file on which the session has not been closed or finalized cannot be played back with this unit.

Playback capability of normal VIDEO CD

This unit can playback conventional Version 2.0 VIDEO CDs (VCD).

Convenient recording features

Versatile recording features are provided, allowing the user to select the desired one for each purpose.

● **One-touch recording :**
   Pressing a single key starts the recording of all tracks or a single track in a CD (CD-DA, the audio of VIDEO CD with PBC OFF).
● **Program recording :**
   Your favorite tracks can be recorded in any desired order. (CD-DA, the audio of VIDEO CD with PBC OFF)

Versatile timer features

● **Timer playback, timer recording :**
   Two timer programs (PROG 1, PROG 2) are available for timer playback (AI timer playback) or timer recording.
   (With the AI timer playback, the playback volume increases gradually until the set volume level is reached.)
● **Sleep timer :**
   This timer turns the unit off automatically when the set time has elapsed. It is convenient for example, falling asleep while listening to music in the night time, etc.

In regard to demonstration

This unit is equipped with a demonstration function (only display). The demonstration consists of sequential change of display and indicators showing the operations, but the audio itself does not change. The demonstration function can be canceled as follows.

"DEMO OFF" (To cancel demonstration):
   Press the **set/demo** key during demonstration.
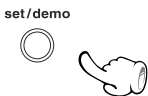
set/demo

"DEMO ON" (To execute demonstration):
   After turning power ON, press and hold the **set/demo** key (for more than 2 seconds).
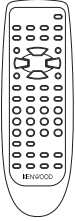
● This operates automatically when a power failure has occurred or the plug of the power cable has been pulled while the power was ON.

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Accessories

Unpacking

Unpack the unit carefully and make sure that all the accessories are present.

Remote control unit (1)   **AM loop antenna (1)**   **FM indoor antenna (1)**   **Video Cord (1)**

Batteries (R6/AA) (2)

AC plug adaptor (1)
Use to adapt the plug on the power cord to the shape of the wall outlet. (Accessory only for regions where use is necessary.)

If any accessories are missing, or if the unit is damaged or fails to operate, notify your dealer immediately. If the unit was shipped to you directly, notify your shipper immediately. Kenwood recommends that you retain the original carton and packing materials in case you need to move or ship the unit in the future.

Keep this manual handy for future reference.

Contents

Caution : Read the pages marked ⚠ carefully to ensure safe operation.

System connection

Connection of the System Accessories

This figure shows the method of connection between the main unit and provided accessories.

CAUTION Note on Connection
Connect the components as shown in the diagram. Only plug the power cord into a power outlet once connections are completed.

CAUTION
The magnet in the speaker may cause color irregularity to the TV or PC monitor. Place the speaker farther away from the TV set or PC monitor.

CAUTION
Be sure to adhere to the following, or proper ventilation will be blocked causing damage or fire hazard.
- Do not place any objects impairing heat radiation onto the top of the unit.
- Leave some space around the unit (from the largest outside dimension including projection) equal to or greater than, shown below.
   Top panel : 50 cm
   Back panel : 10 cm

AM loop antenna
The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

Assemble   *AM loop antenna*

Speaker (Right)
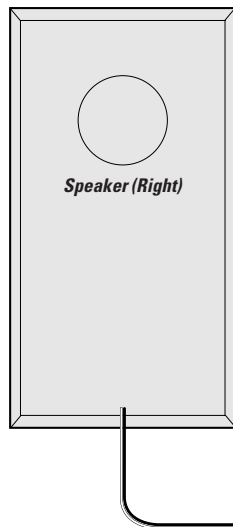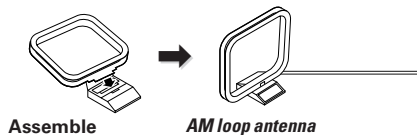
Notes
- Never short-circuit the "**+**" and "**–**" speaker cords.
- If the "**+**" and "**–**" polarity are inverted, the sound will be unnatural with unclear positioning of musical instruments, etc.
- Be sure to insert all connection cords securely. If their connections are imperfect, the sound may not be produced or noise may interfere.
- Before plugging or unplugging a connection cord, be sure to unplug the power cord from the wall AC outlet. If connection cords are plugged or unplugged with the power cord left plugged in, malfunction or damage may result.

Malfunction of microcomputer

If operation is not possible or erroneous display appears even though all connections have been made properly, reset the microcomputer by referring to "In case of difficulty". → 53

FM indoor antenna

The supplied antenna is for temporary indoor use only. For stable signal reception, we recommend to use an outdoor antenna. Remove the indoor antenna if you connect to an outdoor antenna.

➊ **Connect the antenna to the antenna terminal.**
➋ **Locate the position providing good reception condition.**
➌ **Fix the antenna.**

FM indoor antenna

Speaker (Left)

POWER cord
TO WALL AC OUTLET
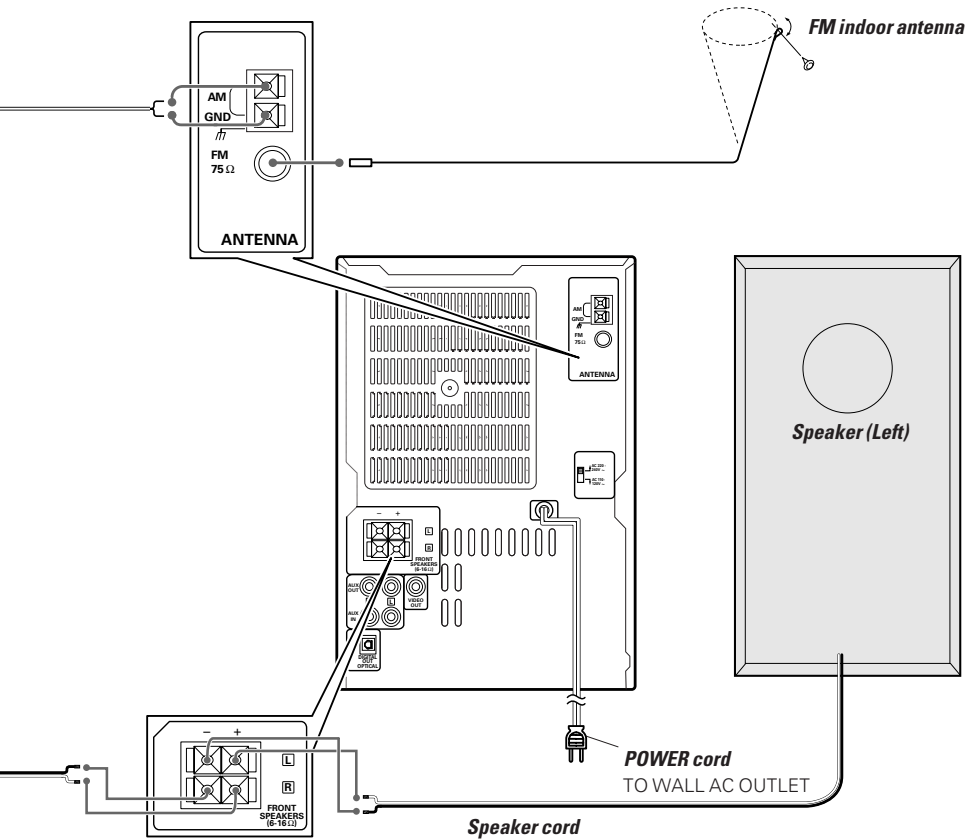
Speaker cord

How to connect speaker cords to the main unit

➊   ➋   ➌
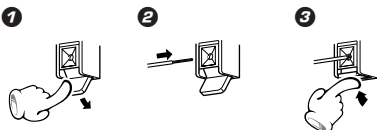
How to connect AM antenna cord to the main unit

➊   ➋   ➌

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Connection of Other Accessories *(Commercially Available Parts)*

CAUTION **Note on Connection**

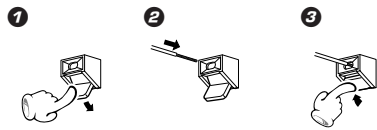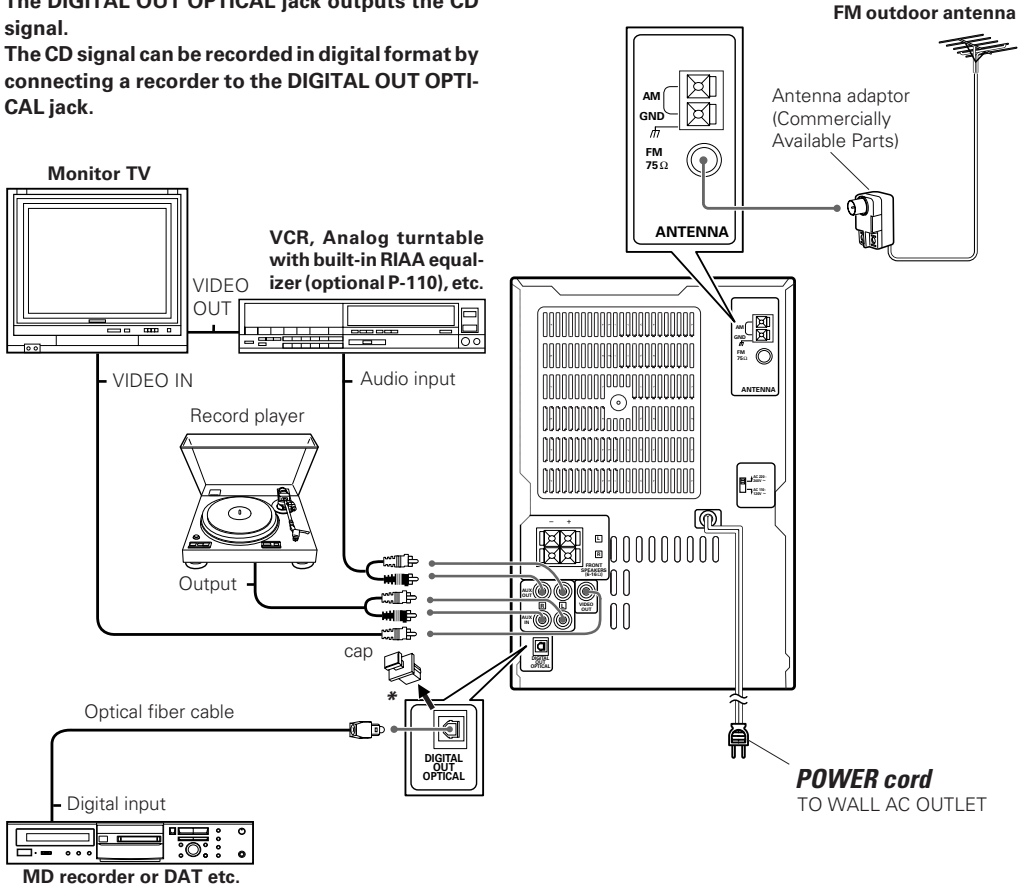**Connect the components as shown in the diagram. Only plug the power cord into a power outlet once connections are completed.**

* DIGITAL OUT OPTICAL jack

The DIGITAL OUT OPTICAL jack outputs the CD signal.
The CD signal can be recorded in digital format by connecting a recorder to the DIGITAL OUT OPTICAL jack.

FM outdoor antenna

Lead the 75Ω coaxial cable connected to the FM outdoor antenna into the room and connect it to the FM 75Ω terminal. Please remove the indoor antenna after an outdoor antenna has been installed.

FM outdoor antenna

AM
GND
FM 75Ω
ANTENNA

Antenna adaptor
(Commercially
Available Parts)

Monitor TV

VCR, Analog turntable with built-in RIAA equalizer (optional P-110), etc.

VIDEO OUT

VIDEO IN

Audio input

Record player

Output

cap

*

Optical fiber cable

DIGITAL OUT OPTICAL

Digital input

MD recorder or DAT etc.

POWER cord
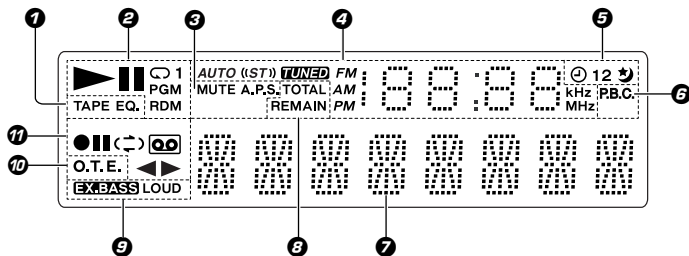TO WALL AC OUTLET

Notes

- In case an associated system component is connected, also read the instruction manual of the component.
- Be sure to insert all connection cords securely. If their connections are imperfect, the sound may not be produced or noise may interfere.
- Before plugging or unplugging a connection cord, be sure to unplug the power cord from the wall AC outlet. If connection cords are plugged or unplugged with the power cord left plugged in, malfunction or damage may result.

Controls and indicators

Display

The displays given in this manual are approximations only. They may differ from what actually appears on the display.


➊ **TAPE EQ. indicator**

➋ **CD-DA (CD, CD-R, CD-RW), VIDEO CD and MP3 file -related indicators**

➌ **MUTE indicator, APS indicator**

➍ **Tuner-related indicators/Numeric information display**

➎ **Timer-related indicators**

➏ **VIDEO CD player-related indicator**

➐ **Character information display**

➑ **Time display indicators**

➒ **EX.BASS indicator, LOUD (Loudness) indicator**

➓ **O.T.E. (One-Touch Edit) indicator**

⓫ **Tape-related indicators**

In the present text, ordinary music CDs, recordable CDs (CD-R) and rewritable (CD-RW) are referred to as "CD-DA". (The display also shows "CD-DA" for these disc media.)

AUTO POWER SAVE function

When the unit is ON and the unit is left for 30 minutes with CD or TAPE not operating, the unit is switched off automatically by this function. This is convenient when you forgot to switch off the unit. This function can be activated or deactivated by the following operation.

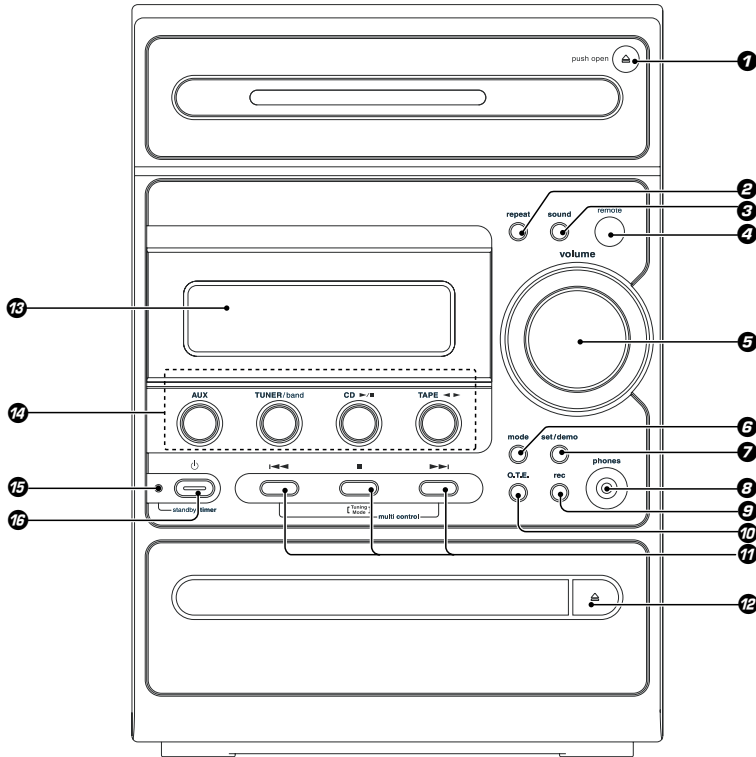➊ Select "APS   ?".

(Press the set/demo key while the "?" mark is blinking.)

➋ Select "APS ON" or "APS OFF".

➌ Set it.
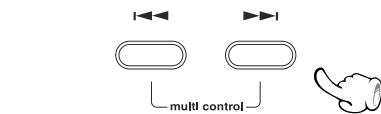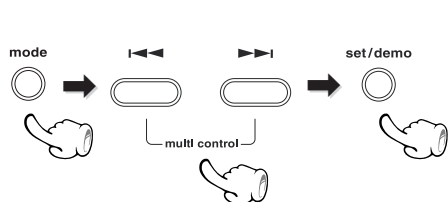
● When the TUNER or AUX input is selected, APS operates only when the volume is set to zero or when MUTE is on.

Main unit

❶ Cassette holder ➡ 21

To load or eject a cassette tape, press the area marked ⏏ **push open** on the cassette holder to open it.

❷ repeat key ➡ 31

Press for setting repeated playback.

❸ sound key ➡ 17

Press to select EX. BASS or LOUD sound effect.

❹ Remote sensor ➡ 13

This window receives signals from the remote control unit.

❺ volume knob ➡ 16

Turn this knob for volume adjustment.

❻ mode key ➡ 9

Press to switch the function of the ⏮ and ⏭ keys to menu select mode. Press again to reset the function of the ⏮ and ⏭ keys to normal mode.

❼ set/demo key ➡ 3 ➡ 9

Press to set or enter an item selected with the ⏮ and ⏭ keys.

This key is also used for switching demonstration on/off and the beat cancel function on while recording the radio broadcast.

❽ Headphone jack ➡ 17

Connect headphone with a stereo mini-plug (optionally available).

About the one-touch operation function

This unit incorporates the one-touch operation function for the user's convenience.
With this function, pressing any key enclosed in ⌐‑‑⌐ while the unit is in standby mode immediately start playback (or reception).

❾ rec key → 27

Press to start tape recording. Pressing this key during recording initiates record-pause after leaving a no-sound blank of about 4 seconds.

❿ O.T.E. key → 34

Press to start recording CD-DA or VIDEO CD (with PBC OFF) onto a tape with one-touch operation.

Pressing this key during CD-DA or VIDEO CD (with PBC OFF) playback records only the track being played onto tape. Pressing it while CD-DA or VIDEO CD (with PBC OFF) are in stop state will record all the tracks onto tape.

⓫ |◀◀ and ▶▶| multi control keys

In the normal mode:

CD-DA, VIDEO CD and MP3 file : → 19

Press to skip tracks.
Press to switch the VIDEO CD screen.

TAPE : → 22

Press to fast forward or rewind tape.

TUNER : → 23

Press to select a preset radio station.

In the menu mode (selected by pressing the mode key), press these buttons to select the desired menu item. To set or enter setting of the menu item, press the set/demo key.

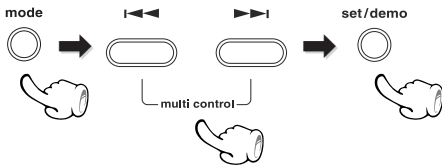mode |◀◀   ▶▶| set/demo

multi control

● Pressing these multi control keys switches the display contents.

┌─ **"TAPE RVS"** → 22

"AUTO PRESET ?" → 24
(Only when the TUNER input is selected)

"INPUT ?" → 44
(Only when the AUX input is selected)

"TIMER ?" → 47

"TIME ADJUST ?" → 45

└─ **"APS ?"** → 9

● The function of these keys returns to the normal mode when they have not been operated for 20 seconds.

■ Tuning Mode key

CD-DA, VIDEO CD, MP3 file and TAPE:

Press to stop a disc or tape operation. → 19 → 22
Press to stop recording. → 27
During VIDEO CD (with PBC ON) or MP3 file operating, press to return to the higher layer of the hierarchy. → 37 → 39

TUNER : → 25

Press to switch between the AUTO (auto tuning, stereo reception) and MONO (manual tuning, monaural reception) modes.

Standby mode : → 45

Press to display the clock.

⓬ ⏏ CD open/close key → 18

Press to open or close the CD tray.

⓭ Display panel

⓮ Basic operation keys

AUX key → 44

Press to reproduce the external source component connected to the AUX (analog auxiliary input) jacks.

TUNER /band key → 23

Press to select the TUNER input.
This key is also use to select the received broadcast band.

CD ▶/Ⅱ key → 18 → 37 → 39

Press to select the CD input and start playback. During CD-DA, VIDEO CD or MP3 file playback, press to pause. During VIDEO CD (with PBC ON) or MP3 file operating, press to advance to the lower layer of the hierarchy.

TAPE ◀ ▶ key → 21

Press to select the TAPE (cassette deck) input and start playback of a tape. Pressing this key during tape playback switches the tape transport direction.

⓯ standby/timer indicator

Lights up when the unit is set to the Standby mode of power.

Red : Ordinary standby.
Green : Timer standby.
Off : The unit is On.

⓰ ⏻ key → 16

Press to set the unit to On or Standby.

Standby mode
While the standby indicator is lit, a small amount of power is supplied to the system to back up the memory. This is called standby mode. Under the condition, the system can be turned ON by the remote control unit.

Operation of remote control unit

The keys on the remote control unit with the same names as on the main unit have the same function as the keys on the main unit.
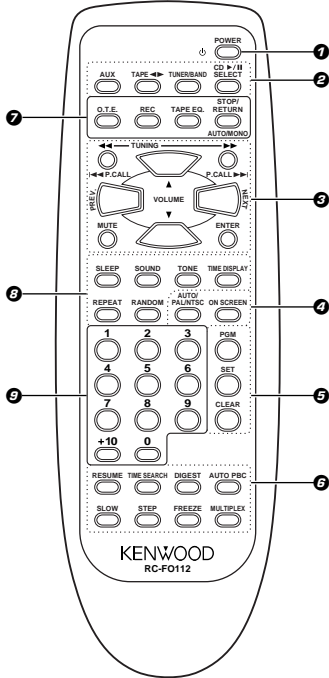
❶ POWER ⏻ key → 16

Press to set the unit to On or Standby.

❷ AUX key → 44

Press to reproduce the external source component connected to the AUX (analog auxiliary input) jacks.

TAPE ◄► key → 21

Press to select the TAPE (cassette deck) input and start playback of a tape. Pressing this key during tape play-back switches the tape transport direction.

TUNER/BAND key → 23

Press to select the TUNER input.
This key is also use to select the received broadcast band.

CD ►/❚❚ key → 18

Press to select the CD input and start CD-DA, VIDEO CD or MP3 file playback. During CD-DA, VIDEO CD or MP3 file playback, press to pause.

SELECT key → 37 → 39

During VIDEO CD (with PBC ON) or MP3 file operating, press to advance to the lower layer of the hierarchy.

❸ ◄◄ TUNING ►► keys → 19 → 22 → 25 → 40

During CD-DA, VIDEO CD, MP3 file or TAPE playback :
Press to fast forward or backward the played audio.
During TUNER reception :
Press to select a radio station.

❙◄◄ P.CALL ►►❙ keys → 19 → 22 → 23 → 37

During CD-DA, VIDEO CD or MP3 file playback :
Press to skip tracks.
During MP3 file operating in stop mode :
Press to select the desired folder or file.
During TAPE playback :
Press to fast forward or backward the played audio.
During TUNER reception :
Press to receive a preset radio station.

PREV. , NEXT key → 38

Press to switch the VIDEO CD screen.

VOLUME keys → 16

Press to adjust the volume.

MUTE key → 17

Press to mute the audio temporarily.

ENTER key → 25

Press to enter a radio station in the preset memory of the tuner.

❹ AUTO/PAL/NTSC key → 15

Press to switch the video output signal format.

ON SCREEN key → 14

Press to select the information to be displayed on the TV screen.

❺ PGM key (CD) → 29

Press to program tracks in the desired sequence.

SET key → 9 → 29

In program playback of CD-DA or VIDEO CD (with PBC OFF), press to enter the selected track number in memory.
Press to set or enter an item selected with the ❙◄◄ or ►►❙ key.

CLEAR key → 29

Press to clear a programed track(s).

❻ Keys connected with the VIDEO CD

RESUME key → 41

Press to resume VIDEO CD or CD-DA playback from the location where playback was last stopped.

TIME SEARCH key → 41

Press to jump to a specific location on a VIDEO CD or CD-DA.

DIGEST key → 42

Use for the Digest functions to scan a disc of a VIDEO CD or CD-DA.

AUTO PBC key → 18 → 38
Press to activate or deactivate the playback control (PBC) functions of a VIDEO CD.

SLOW key → 40
Use for slow-motion playback of a VIDEO CD.

STEP key → 40
Press to advance the picture of a VIDEO CD frame by frame.

FREEZE key → 40
Press to freeze the image of a VIDEO CD.

MULTIPLEX key → 40
Press to change the audio output channel of a VIDEO CD or MP3 files.

❼ **O.T.E. key** → 34 → 35
Use for recording of CD-DA or VIDEO CD (with PBC OFF) onto tape with a one-touch operation.

REC key → 27
Press to start recording.

TAPE EQ. key → 22
Press to turn the tape equalizer on.

STOP key → 19 → 22 → 27 → 45
During CD-DA,VIDEO CD,MP3 file or TAPE playback:
Press to stop playback.
During TAPE recording :
Press to stop recording.
Press in power standby mode to display the clock.

RETURN key → 37 → 39
During VIDEO CD (with PBC ON) or MP3 file operating :
Press to return to the higher layer of the hierarchy.

AUTO/MONO key → 25
During tuner reception, press to switch the tuning mode of the tuner.

❽ **SLEEP key** → 46
Press to set the sleep timer.

SOUND key → 17
Press to switch the sound effect to EX. BASS or LOUD.

TONE key → 17
Press to adjust the tone.

TIME DISPLAY key → 20
Press to switch the time information displayed during CD-DA or VIDEO CD (with PBC OFF) playback.
Press to display ID3 TAG (song title and artist name) during MP3 playback.
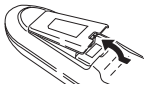
REPEAT key → 31
Press for setting repeated playback.

RANDOM key → 32
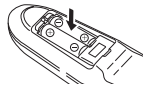Press for setting playback of the CD-DA and VIDEO CD (with PBC OFF) tracks in a random order.

❾ **Numeric keys** → 19 → 25 → 41 → 42
Press to select CD-DA, VIDEO CD tracks, MP3 file or recall a preset station of the tuner.
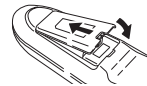

Loading batteries

❶ **Remove the cover.**   ❷ **Insert batteries.**   ❸ **Close the cover.**

● Insert two R6 ("AA"-size) batteries following the polarity indications.

Operation

After plugging the power cord of this unit, press the POWER (⏻) key of the remote control unit to turn the system ON. When the system is turned ON, press the key of the function to be operated.

● When pressing more than one remote control keys successively, press the keys securely by leaving an interval of 1 second or more between keys.

Operating range (approx.)

Remote sensor

6 m

30° 30°
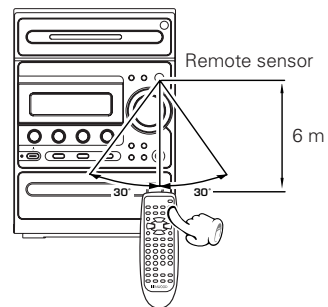
Notes
● The provided batteries are intended for use in operation checking, and their service life may be short.
● When the remote controllable distance becomes short, replace both of the batteries with new ones.
● If direct sunlight or the light of a high-frequency fluorescent lamp (inverter type, etc.) is incident to the remote sensor, malfunction may occur. In such a case, change the installation position to avoid malfunction.

Before playing a disc

Discs which can be played with this unit

This unit can play CD-DA (8cm, 12cm), VCD, finalized CD-R and CD-RW, disc media of MP3 files which have been finalized or contains a closed session, and the audio part of CD-G/CD-EG (CD graphics) discs and CDV discs.

● This unit is suitable for the NTSC/PAL format.
  Discs recorded with other television format (SECAM) cannot be played back with this unit.

CD-R and CD-RW
The CD-R and CD-RW records digital data of music CD or other source without compression so it can be played back at equivalent high quality to commercially marketed CDs.

● This unit cannot playback a CD-R or CD-RW which has not been finalized.
● This unit cannot play other data than audio signal data, such as data signal in a CD-ROM. When a disc containing various data, for example a CD Graphic or CD-TEXT is loaded in the unit, the unit cannot play other data than the audio signal data.

  In addition to the above, this unit may also be incapable of playing certain CD-R or CD-RW discs depending on the recording characteristics of recording equipment (including the pickup), properties of the CD-R or CD-RW in use, its recording condition and so on.

MP3 files

● Check to ascertain that MP3 files can be played back correctly on the personal computer in use prior to saving them onto the media.
● Check to ensure that the saved file can be played back normally.
● MP3 files on which the session has not been closed or finalized cannot be played back with this unit.
● There are cases where playback is not possible when MP3 files and music CD information (CD-DA) are saved on the same media.

Explanation of terms
VIDEO CD

This is a CD with recorded moving images. By compressing the video information to 1/120 and the audio information to 1/6, recording of up to 74 min is possible on discs with the same 12 cm diameter as general audio CDs.
Two types of discs are being marketed (without PBC) for simple playback and (with PBC) with menus and special playback (playback control). This unit can be used for playback of VIDEO CDs of both types.

Character indications on the TV screen
To constantly display character information on the TV screen, select "OSD ON".

Remote control unit only

ON SCREEN

Each press switches the modes as follows.

① **"OSD ON"** .... Display executed opera-tion, track number and time.

② **"OSD OFF"** .... Only display executed operation.

Key error display

If a wrong key is pressed when operating the unit, a hand mark is displayed at the top left corner of the TV monitor screen.

Switching AUTO/PAL/NTSC

The TV screen display and disc signal formats can be classified roughly into two types (NTSC, PAL) depending on the countries and regions. Therefore, it is necessary to set the NTSC/PAL switch of this unit according to the TV format (country or region) and disc.

❶ **Check the display format of your TV.**
❷ **Press the key to scroll the current TV format display.**
   To change the TV format, press the key again while the TV format display is being scrolled.

Remote control unit only

AUTO/
PAL/NTSC

● The screen display may be disturbed during switching. This is not a malfunction.

TV formats of major countries

| TV format	Countries, regions
PAL	China, North Korea, UK, Germany, Australia, New Zealand, Kuwait, Singapore, etc.
NTSC	Japan, Taiwan, Korea, USA, Canada, Mexico, Philippines, Chile, etc.

Each press of the key cyclically changes the setting.

① **"AUTO" ....Switches automatically**
   (Factory setting)
② **"PAL" ....PAL format**
③ **"NTSC" .....NTSC format**

► AUTO

Screen display examples of various TV formats

When your TV is switchable between NTSC/PAL
Try playing a disc. If the picture is black and white or as shown on the right, stop playback and switch the screen display formats of this unit and the TV to another format. This will improve the picture quality.

NTSC   PAL
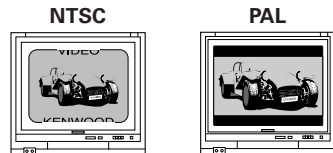
When your TV is compatible only with the PAL format
With certain VIDEO CDs, the playback picture may have black spaces above and below it (as shown on the right). This is because the disc has been recorded in the NTSC format. The screen may be somewhat hard to see but this is not malfunction.
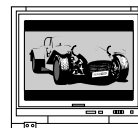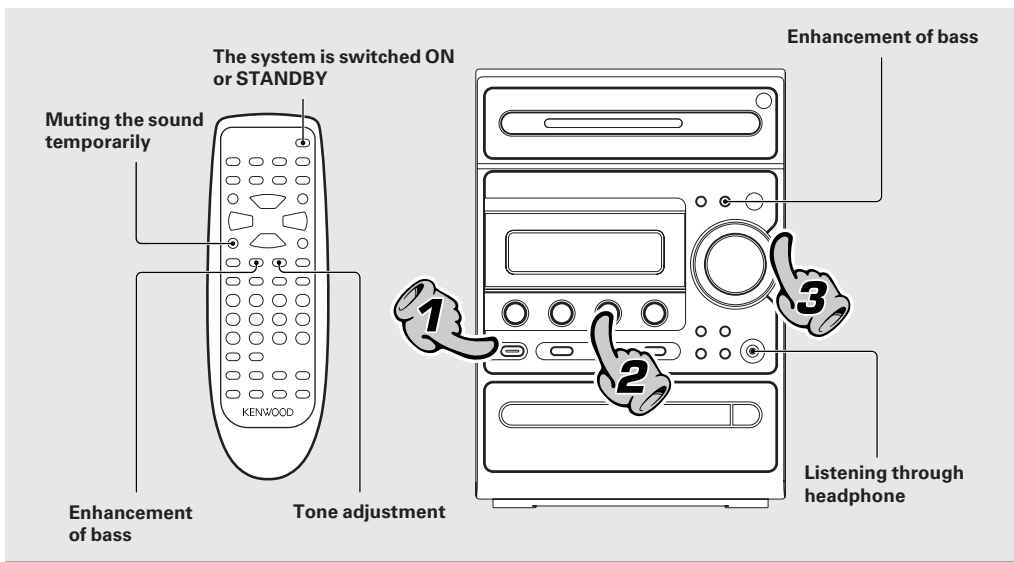
When your TV is compatible only with the NTSC format
With certain VIDEO CDs, the playback picture may be cut above and below it (as shown on the right). This is because the disc has been recorded in the PAL format. The screen may be somewhat hard to see but this is not malfunction.

Basic use method

Enhancement of bass

The system is switched ON or STANDBY

Muting the sound temporarily

Enhancement of bass

Tone adjustment

Listening through headphone

---

1. *Set the ⏻ key to ON.*

Pressing the ⏻ key when the unit is ON turns it off (Standby mode of power).

● Pressing the **TUNER/band**, **CD ►/II**, **TAPE ◄ ►** or **AUX** key also turns power on and starts playback (reception) of the corresponding input. (One-touch operation)

● When the CD or TAPE input is selected while the corresponding disc or tape has been loaded, it immediately starts to play.

---

2. *Selecting the desired source.*

Example:
To select the CD input

CD ►/II

CD (CD-DA, MP3 file and VIDEO CD) → [18] → [37] → [38]
TAPE   → [21]
TUNER (Broadcasts)   → [23]
AUX (External input) [Adjusting the AUX input level → [44]]

● Pressing the **TUNER/ band**, **CD ►/II**, **TAPE ◄ ►** or **AUX** key selects the corresponding input.
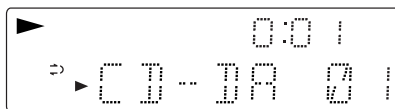
```
►                        0:01
  ↻  ► CD-DA  01
```
When CD (CD-DA) has been selected.

---

3. *Volume adjustment.*

The volume decreases   **volume**   The volume increases

● The display shows a reference value.

```
►                        0:05
  ↻  ► VOLUME 28
```
Volume display

16 EN
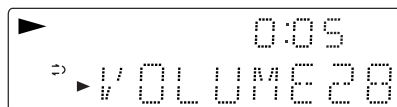
Listening through headphone

Insert the headphone plug into the headphone jack.

- Headphone with a stereo mini plug can be connected.
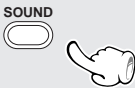- The sound from all speakers are cut off.

Muting the sound temporarily

Remote control unit only

MUTE

- Press again to resume the original volume.
- This is also canceled when the volume is changed.

Enhancement of bass

SOUND

Each press switches the modes as follows.

① **"EX.BASS" lights.**
   The low frequencies are enhanced regardless of the current volume level.
② **"LOUD" (Loudness) lights.**
   The low frequencies are enhanced according to the current volume level. (Effective during low-volume listening.)
③ **Both indicators off.**
   Canceled.

- Adjusting the tone while the "**LOUD**" or "**EX.BASS**" indicator is lit. Sound enhancement mode is canceled when the indicator turns off.

Tone adjustment

Remote control unit only

The lowest and highest frequency bands can be adjusted independently.

❶ **Select the frequency band.**

TONE

Each press switches the operation.

① **"BASS" (low frequency) adjustment**

$$BASS \quad 0$$

② **"TREBLE" (high frequency) adjustment**

$$TREBLE \quad 0$$

③ **Normal mode**

(Go to step ❷ within 8 seconds.)

❷ **Adjust.**

|◄◄ P.CALL   P.CALL ►►|
PREV.   NEXT
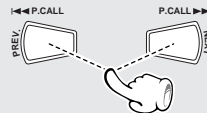
(To adjust the other frequency band, repeat steps ❶ and ❷ for it.)

- The levels of both "**BASS**" and "**TREBLE**" can be adjusted in 2 steps in the range between – 8 and +8.
- Adjusting the tone while the "**LOUD**" or "**EX.BASS**" indicator is lit. Sound enhancement mode is canceled when the indicator turns off.

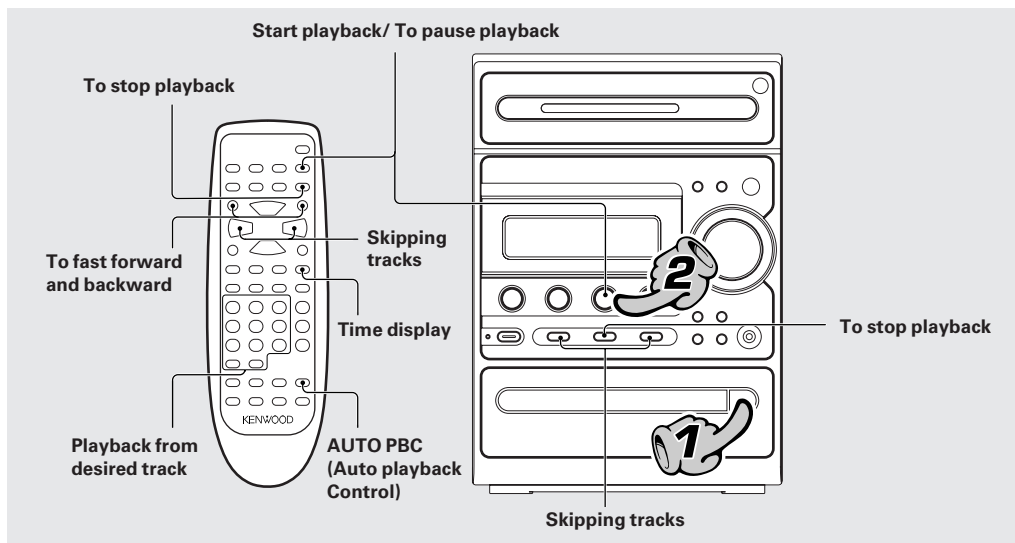# *Playback of CD-DA, MP3 file and the audio of VIDEO CD*

This section describes you how to play CD-DA and the audio of VIDEO CD from the first track and MP3 file of the order in which it was written.

For details on VIDEO CD menu playback, see "Playback of VIDEO CD". → 38 ~ 43
For details on selecting MP3 file playback, see "Playback of MP3 file". → 36 ~ 37
When a disc is placed into the CD player in advance, the unit will be switched on automatically by pressing the CD ►/ll key, and playback will start.
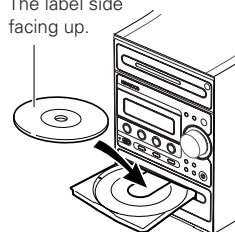
Start playback/ To pause playback

To stop playback

Skipping tracks

To fast forward and backward

Time display

To stop playback

Playback from desired track

AUTO PBC (Auto playback Control)

Skipping tracks

1. Load a disc.

❶ Press the ⏏ key to open the CD tray.
❷ Place a disc.
❸ Press the ⏏ key to close the CD tray.

- Do not touch the played side of disc.
- Be sure to place a disc horizontally. Placing it with an inclination will result in malfunction.
- This unit may not be able to playback certain CD-R and CD-RW discs depending on the recording equipment or discs. See **"Notes on playback of CD-R and CD-RW".** → 20
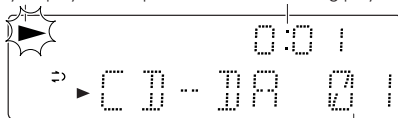
The label side facing up.

A non-finalized CD-R, CD-RW and MP3 files cannot be played back.

2. Start playback.

- After a few seconds, play starts from track No.1.

Play display   Elapsed time of track being played

Track No. being played

For a VIDEO CD with PBC, check that the "PBC" indicator is not lit. If the "PBC" indicator is lit, select "PBC OFF" as follows:
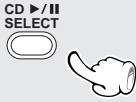
❶ Keep the ■ key depressed for more than 2 seconds.
❷ Press the AUTO PBC key so that the "PBC" indicator goes off.
❸ Press the CD ►/ll key to start playback.

When playing a MP3 file, press the **CD ►/ll** key repeatedly until "►" (play indicator) is displayed.

For a disc other than VIDEO CDs with PBC, "PBC OFF" is automatically selected.

Start playback/ To pause playback

> **CD ►/ ❚❚**
> **SELECT**

● Each press pauses and plays the CD alternately.

To stop playback

> **STOP/**
> **RETURN**

Playback from desired track

> **Remote control unit only**
>
> **Select the desired track No.**
>
> | 1 | 2 | 3 |
> |---|---|---|
> | 4 | 5 | 6 |
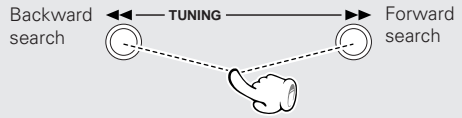> | 7 | 8 | 9 |
> | +10 | 0 | |
>
> **Press the numeric keys as shown below....**
>
> **To select track No. 23 : +10 × 2, 3**
> **To select track No. 40 : +10 × 4, 0**
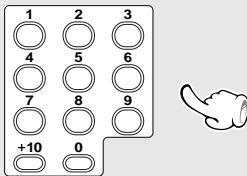
To fast forward and backward

> **Remote control unit only**
>
> Backward ◄◄ ——— **TUNING** ——— ►► Forward
> search   search

● When the ◄◄ or ►► key is pressed during CD playback or in pause mode, search begins. There are four search speeds. With each press of the key for the current search direction, the next higher speed is selected.   ➡ 40
● To resume normal playback, press the **CD ►/ ❚❚** key of the CD player.

Skipping tracks

> To skip   I◄◄P.CALL   P.CALL►►I   To skip
> backward   forward
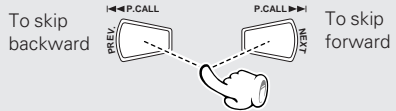
● The track in the direction of the key pressed is skipped, and the selected track will be played from the beginning.
● When the I◄◄ key is pressed once during playback, the previous track will be played.
● Tracks can be skipped by pressing the I◄◄ or ►►I key even when the CD is in stop mode. In this case, playback starts automatically from the point reached by skipping. For MP3 files, playback will start after pressing the **CD ►/ ❚❚** key.

Eject the CD

> **Main unit only**
>
> ⏏

● The CD tray will open. (Pressing the key again closes the CD tray.)

Notes on playback of CD-R and CD-RW

This unit cannot playback the following types of CD-R and CD-RW discs.

● This unit cannot playback a CD-R or CD-RW disc which has not been finalized.
● This unit cannot play other data than audio signal data, such as data signal in a CD-ROM. When a disc containing various data, for example a CD Graphic or CD-TEXT is loaded in the unit, the unit cannot play other data than the audio signal data.

   In addition to the above, this unit may also be incapable of playing certain CD-R or CD-RW discs depending on the recording characteristics of recording equipment (including the pickup), properties of the CD-R or CD-RW in use, its recording condition and so on.

Notes on playback of CD-EXTRA

This playback only output audio signal.

● When playback a CD-EXTRA disc, the display shows "CD-DA" or "VCD" depending on the format of the disc.
● Some CD-EXTRA discs can not be played depending on the format of the disc, the display shows "NO DISC".
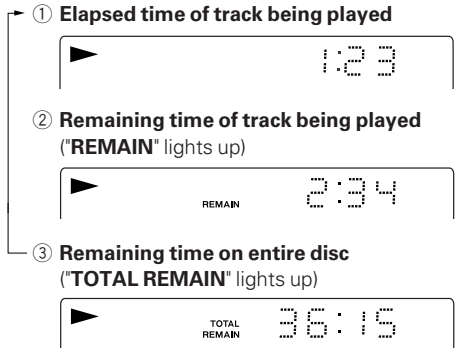● When "VCD" is displayed, only audio signal will be produced.

Time display for the CD-DA and VIDEO CD player (with PBC OFF)

Each press of the TIME DISPLAY key changes the displayed contents.
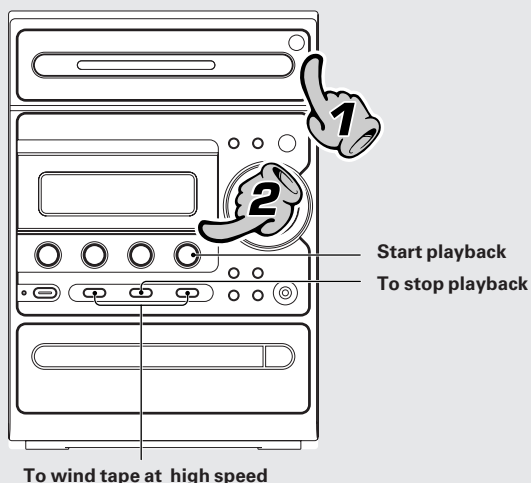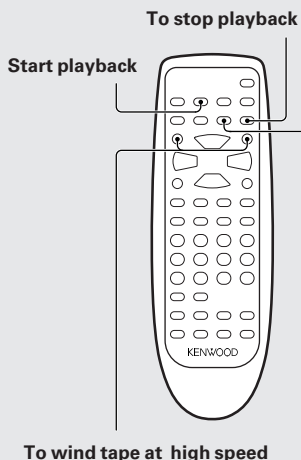
Remote control unit only
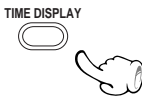
TIME DISPLAY

● Only time information ① and ② can be displayed during program mode or random playback.
● During playback of a VIDEO CD incorporating PBC with PBC ON and MP3 files, the display can not be changed.

① **Elapsed time of track being played**

▶   1:2 3

② **Remaining time of track being played**
   ("**REMAIN**" lights up)

▶   REMAIN   2:3 4

③ **Remaining time on entire disc**
   ("**TOTAL REMAIN**" lights up)

▶   TOTAL REMAIN   36:15

Playback of TAPE

If you load a tape in the cassette deck in advance while the power is off, pressing the TAPE ◄ ► key will turns the power on automatically and starts the tape playback.

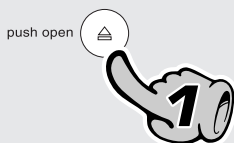**Selection of TAPE equalizer (TAPE EQ.)**

To stop playback

Start playback

Start playback
To stop playback

To wind tape at high speed   **To wind tape at high speed**

1. *Load a cassette tape.*

❶ Press the area marked ⏏ push open to open the cassette holder.
❷ Insert a tape.
❸ Press the area marked ⏏ push open to close the cassette holder.

push open ⏏

> Do not use a cassette with more than 90-minute recording time, for the tape used with such a cassette is very thin and tends to cause troubles such as entanglement around the pinch roller or cutting off tape.

● The tape deck of the unit can play Normal (Type Ⅰ) tapes.
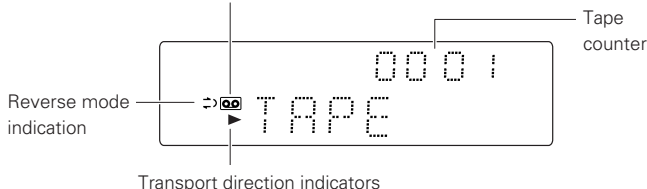● When there is a tape slack, wind the tape before loading.   ➔ 52

2. *Start playback.*

Press the TAPE ◄ ► key.

Displayed when the deck is loaded with a tape.

TAPE ◄ ►

Tape counter

Reverse mode indication

```
                          0 0 0 1
⇄ 🔄
►  TAPE
```
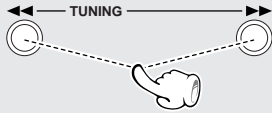
Transport direction indicators

Transport direction indicators:
Indicates the tape transport direction during playback or recording by lighting of ◄ or ►. This direction is the direction stored in memory when the tape was last stopped.

To wind tape at high speed

To fast wind in direction ⬅

To fast wind in direction ➡

◄◄ ——— TUNING ——— ►►

- Press the **STOP** ■ key to stop fast winding.
- The same operation is also available with the ◄◄ and ►► keys on the main unit.

Selection of TAPE equalizer (TAPE EQ.)

When playing a tape prerecorded with Noise Reduction system (such as the DOLBY NR) ON, be sure to set the "TAPE EQ." ON for playback.

Lit when "TAPE EQ." is ON
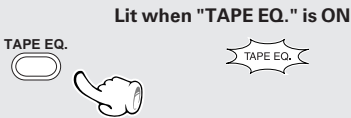
TAPE EQ.

TAPE EQ.

Each press switches the modes as follows.

① **"TAPE EQ." ON**
(TAPE equalizer is used)

② **"TAPE EQ." OFF**
(TAPE equalizer is not used)

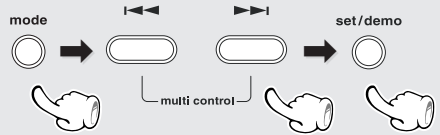- Select the "**TAPE EQ.**" ON mode according to the recording condition of the tape.
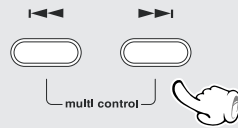
To stop playback

STOP/
RETURN

Selection of reverse mode

Main unit only

❶ Select "TAPE RVS".

mode   ◄◄   ►►   set/demo

multi control

❷ Select.

◄◄   ►►

multi control

① **" ⊃ " : (ONE-WAY)**
Only one side is played back (recorded), and then the tape stops.

② **" ⊃ " : (REVERSE)**
Both sides are played back (recorded), and then the tape stops. (When the tape transport direction is "◄", the tape stops after one side has been played (recorded)).

③ **" ⊃ " : (ENDLESS)**
Both sides are played back endlessly. (The tape stops after recording onto both sides. When the tape transport direction is "◄", the tape stops after one side has been recorded.)

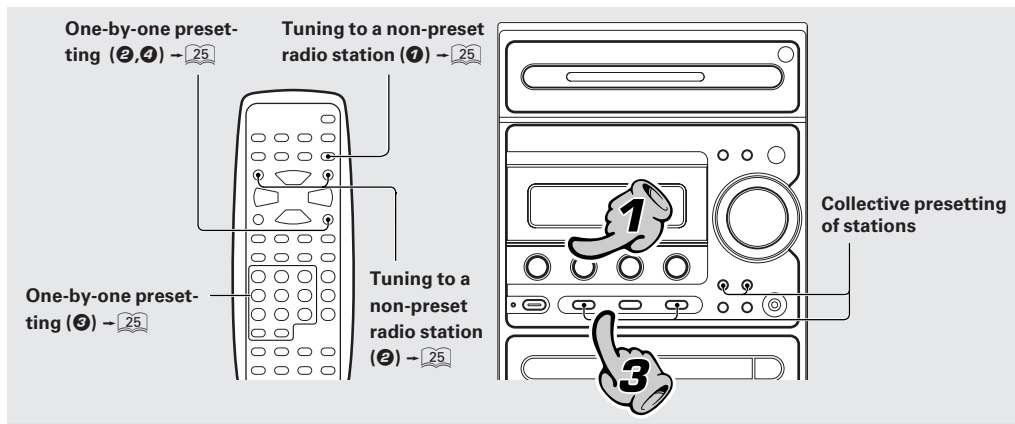**(The initial setting is " ⊃ "(REVERSE))**

❸ Set it.   set/demo
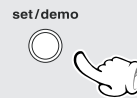
A tip for use of the tape counter

The tape counter is set to "**0000**" when a cassette tape is loaded. By writing down the counter reading in case you want to interrupt recording (playback) in the middle of the tape, the memo will be helpful as a reference for locating the same position when continuing the recording (playback) the next time. The tape counter figure decreases during recording or playback of the back side (while the ◄ tape transport indicator is lit). To set the tape counter to "**0000**", open the cassette holder once. Then the counter will be reset.

Receiving broadcast station

When the TUNER/band key is pressed, the unit will automatically be switched on and reception status will be reached.

One-by-one preset-ting (❷,❹) → 25

Tuning to a non-preset radio station (❶) → 25

Collective presetting of stations

One-by-one preset-ting (❸) → 25

Tuning to a non-preset radio station (❷) → 25
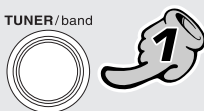
TUNER / band

1. Select the tuner input.

Each press of the TUNER/band key switches the band as follows.
- FM
- AM

2. Preset a radio station in memory.

Collective presetting of stations → 24

Follow the procedure in "**Collective presetting of stations**" to preset automatically the tunable radio stations in your area.

- Once the stations are stored by auto presetting, you are not required to repeat this procedure the next time you listen to radio. However when you shift to another location whereby the broadcast station frequencies are different, you will have to re-execute the presetting of stations.

One-by-one presetting (Manual preset) → 25

A station can also be tuned even when it is not preset. For details, read "**Tuning to a non-preset radio station (Auto tuning, Manual tuning)**".

3. Tuning (Preset Call)

multi control

- If radio stations have already been stored with auto presetting or manual presetting, select a station using the |◄◄, ►►| key. Each press of the same key switches the preset stations in sequence.

The "**TUNED**" indicator lights when a station is received

AUTO (ST) **TUNED** FM   108.00 MHz
► TUNER   02
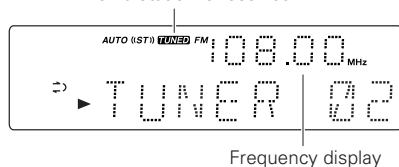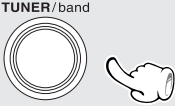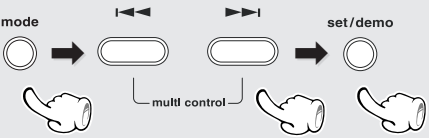
Frequency display

When ►►| is pressed : 1→2→3 ... 28→29→30→1...
When |◄◄ is pressed : 30 → 29 → 28 ..... 3 → 2 → 1 → 30.....

- When a key is held depressed, preset stations will be skipped at an interval of about 0.5 second.
- To select a preset station from the remote, use the |◄◄ **P.CALL** ►►| key or numeric keys.

23 EN

Collective presetting of stations

| Main unit only |

❶ **Select the tuner input.**

TUNER/ band

❷ **Select "AUTO PRESET ?".**
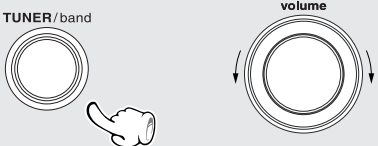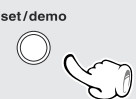
mode ➡ |◄◄ ►►| ➡ set/demo

└ multi control ┘
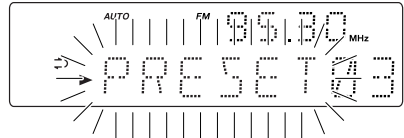
● A maximum of 30 stations of the band presently being received will be preset.
● When there are many stations and the intended station has not been preset, please also use "**One-by-one presetting (Manual preset)**". ➡ 25


Channel space setting *(Except for Australia)*

The space between radio channels has been set to the one that prevails in the area to which the system is shipped. However, if the current channel space setting does not match the setting in the area where the system is to be used, for instance when you move from area 1 or area 2 shown in the following table or vice versa, proper reception of AM/FM broadcasts cannot be expected. In this case, change the channel space setting in accordance with your area by referring to the following table.

| Main unit only |

❶ **Turn power on.**

❷ **While holding TUNER/band key pressed, turn the volume knob to select "FM 50 k" or "FM 100 k".**

TUNER/ band   volume

❸ **Set it.**

set/demo

Each press switches the space frequency alternately.

① **FM 50 k**

FM   50K
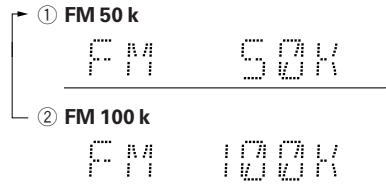
② **FM 100 k**

FM   100K

● At FM 50 kHz, the corresponding AM frequency is 9 kHz. At FM 100 kHz, the corresponding AM frequency is 10 kHz.

	Area	CHANNEL Space Frequency
1	USA, Canada and South American countries	FM: 100 kHz AM: 10 kHz
2	Other countries	FM: 50 kHz AM: 9 kHz

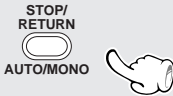## Tuning to a non-preset radio station *(Auto tuning, Manual tuning)*

Remote control unit only

Select the tuning mode according to the radio wave receiving condition.
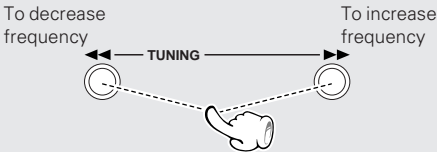
> **When the receiving condition is good: AUTO mode**
> **When it is poor due to weak radio waves: MANUAL mode**

➊ Select the AUTO or MANUAL mode.

STOP/
RETURN

AUTO/MONO

● The same operation is also available with the ■ **[Tuning Mode]** key on the main unit.

➋ Tune a station.

To decrease frequency ◄◄ — **TUNING** — ►► To increase frequency

● In MANUAL mode, FM stations are received in monaural.

- -

Each press alternates the mode.

> ① **"AUTO" :**
> Stereo reception ("**AUTO**" lit)
> ② **"MANUAL" :**
> Monaural reception ("**AUTO**" not lit)

● Normally, use the **AUTO** (Auto tuning, stereo reception) mode.

- -

In AUTO mode :

> The next preset station can be received automatically every time the TUNING (◄◄ or ►►) key is pressed.

In MANUAL mode :

> Press the TUNING (◄◄ or ►►) key repeatedly until the desired station is received. The desired station can also be received by holding the TUNING (◄◄ or ►►) key depressed until its frequency is displayed.

One-by-one presetting *(Manual preset)*

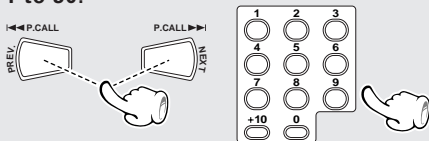| Remote control unit only |
| --- |

➊ Perform the procedure in "Tuning to a non-preset radio station (Auto tuning, Manual tuning)" to receive the station to be preset.

➋ Press the ENTER key during reception.
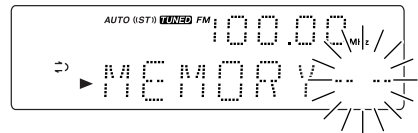
ENTER

(Proceed to step ➌ while "MEMORY" is lit.)

➌ Select one of the preset numbers from 1 to 30.

I◄◄ P.CALL   P.CALL ►►I
PREV.   NEXT

1	2	3
4	5	6
7	8	9
+10	0	

➍ Press the ENTER key again.

ENTER

(Repeat steps ➊, ➋, ➌ and ➍ to preset other stations)

AUTO ((ST)) **TUNED** FM : 100.00 MHz
⇄ ► MEMORY

"**MEMORY**" lights (for approx. 20 sec.)

● A maximum of 30 stations of the band presently being received will be preset.

- -
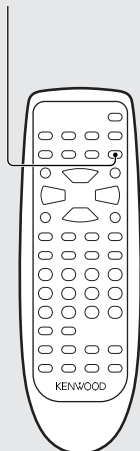
AUTO ((ST)) **TUNED** FM : 100.00 MHz
⇄ ► MEMORY 14
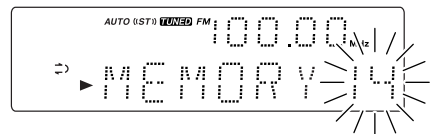
● If several stations are preset under the same number, the previous memory is replaced with the latest memory contents.
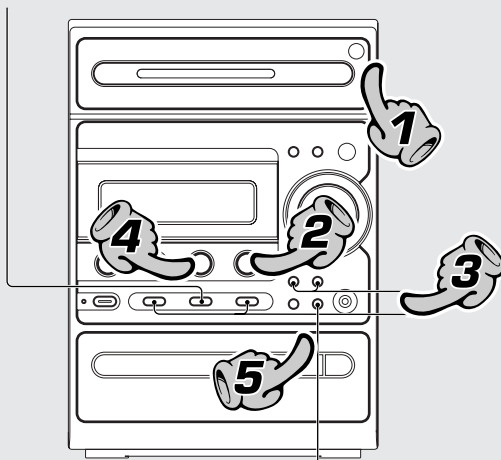
Recording on TAPE

The tape deck of the unit can record signals only on Normal (Type Ⅰ) tapes. It cannot record on High (Type Ⅱ) and Metal (Type Ⅳ) tapes.

Stop the recording   Stop the recording

Start recording/ Pause the recording

1. Load a tape in deck.

❶ Press the area marked ⏏ push open to open the cassette holder.
❷ Insert a tape.
❸ Press the area marked ⏏ push open to close the cassette holder.

push open ⏏

Do not use a cassette with more than 90-minute recording time, for the tape used with such a cassette is very thin and tends to cause troubles such as entanglement around the pinch roller or cutting off tape.

● When there is a tape slack, wind the tape before loading.   → 52
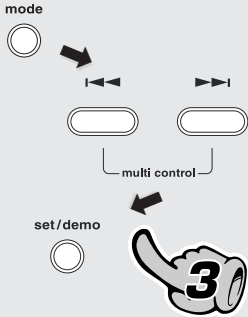
2. Select the tape transport direction.

TAPE ◄ ►

To reverse the transport direction :

❶ Press the TAPE ◄ ► key.
❷ Stop playback.

● When recording is started, the tape is transported in the direction selected in this step.

Check the tape transport direction indicator.   → 21

● Search the position you want to start recording in advance.

mode

multi control

set/demo

3. Set the recording condition.

Select the reverse mode. →22

- Check the tape transport direction before starting recording. If it is set to the reverse direction (◄), only one side of tape can be recorded regardless of the reverse mode setting made here.
- The tape equalizer is defeated during recording.

Select an input source other than "TAPE"
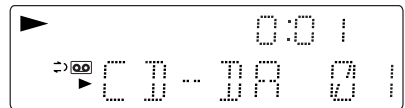
**Example:
To select the CD input**

CD ►/II
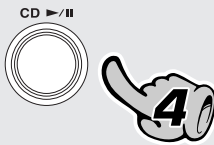
4. Select the source to be recorded.

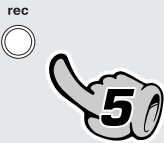**CD (CD-DA, VIDEO CD with PBC OFF and MP3 file)** [For PBC OFF →18]
TUNER (Broadcasts)
AUX (External input) [Adjusting the AUX input level →44]

- If a CD has already been loaded, it starts to play now. Press the ■ key to stop it.

The character information display shows the recording input source.

5. Start recording.

❶ **Press the rec key.**
❷ **Play (or tune) the input source to be recorded.**

- -

While recording from tuner input, beat sound can be minimised by pressing the set/demo key.

Each press switches the modes as follows.

① **"BEAT CANCEL ON" :**
(Beat Cancel is activated)
② **"BEAT CANCEL OFF" :**
(Beat Cancel is deactivated)

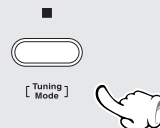- -

rec

- Recording stops automatically when the tape side(s) to be recorded have been fully recorded.

Pause the recording

rec

Lights

- Press the **rec** key during recording. It pause after leaving a non-recorded blank of 4 seconds. (Press the key again to resume recording.)

Stop the recording

[Tuning Mode]

Points in CD recording (CD-DA and VIDEO CD with PBC OFF only)

When recording CD tracks onto a tape, if you leave the cassette deck in record-pause mode beforehand, the cassette deck recording can be started when the CD starts to be played.

➊ **Put the CD player in pause mode.**

➋ **Select the track to be recorded with the skip (|◄◄, ►►|) keys. (The CD player pauses at the beginning of the selected track.)**

➌ **Put the cassette deck in Record-pause mode. (Press rec key twice)**

➍ **Start playing the CD. (Recording starts)**

● To stop recording, press the ■ key.

Various CD (CD-DA, VIDEO CD and MP3 file) playback features

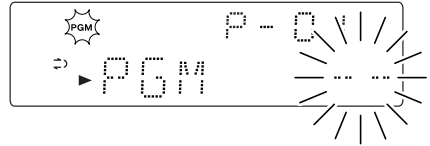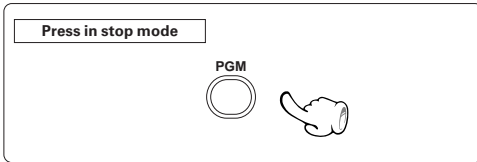Symbols **CD-DA** **VIDEO CD** **MP3 file** in the text indicate the disc media that can be played back.

Listening to the desired sequence *(PGM)* CD-DA VIDEO CD (with PBC OFF → 18) MP3 file

Use the following procedure to program desired tracks in a desired order. (up to 32 tracks)
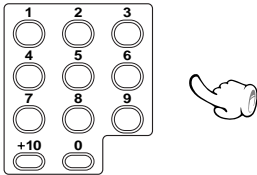
A non-finalized CD-R or CD-RW cannot be played back.
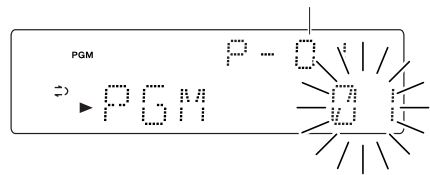
Select the CD input.

1 Select "PGM" mode.

Press in stop mode

PGM

2 Select track numbers in the order you want to play them.

❶ Select the track.

1	2	3
4	5	6
7	8	9
+10	0	

(Go to step ❷ within 20 seconds.)

❷ Confirm the selection.

SET

(To select more than one track, repeat steps ❶ and ❷ for each track.)

Program position of the track to be selected next.

Selection of tracks

Press the numeric keys as shown below....
To select track No. 23 : +10 x 2, 3
To select track No. 40 : +10 x 4, 0

● Up to 32 tracks can be programed. When "**PGM FULL**" is displayed, no more tracks can be programed.
● If you made a mistake, press the **CLEAR** key and enter the track No. again.
● When a track No. is entered, the track will be added to the end of the existing program.

3 Start playback.

CD ►/ II
SELECT
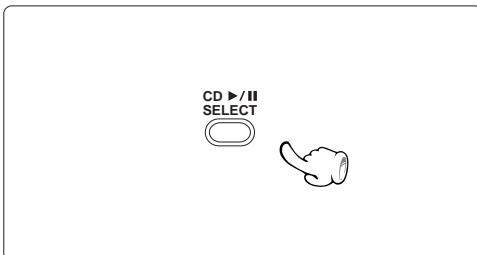
● Tracks will be played in the order they were programed (following the program numbers).
● When the I◄◄ / ►►I key is pressed during play, the pro-gram will jump to the preceding or the following track respectively.

To clear the entire program

Press in stop mode
PGM

Goes off

```
              0:00
  ↻ ► CD-DA 01
```
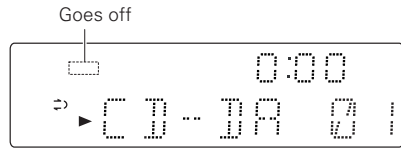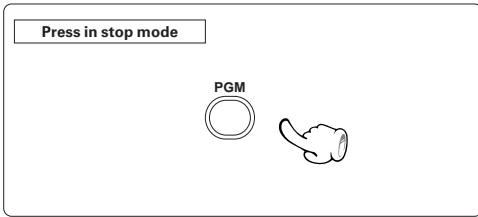
The program mode is canceled when the unit is turned off, change to other selector or the programed disc is ejected. The set program is cleared entirely at this time.

30 EN

Repeated playback *(REPEAT)*

You can repeatedly listen to a favorite track or disc.

A non-finalized CD-R, CD-RW and MP3 files cannot be played back.

Select the CD input.

Setup for repeating a single track   CD-DA   VIDEO CD (with PBC OFF → 18)   MP3 file

❶ **Confirm that the "PGM" indicator is not lit.**

PGM

❷ **Play the track to be repeated.**

CD ►/❚❚
SELECT

When playing a MP3 file, press the **CD ►/❚❚** key repeatedly until "►" (play indicator) is displayed.

❸ **Select "⟳ 1".**

REPEAT

● If the "**PGM**" indicator is lit, turn it off by pressing the **PGM** key in stop mode to cancel the program mode.

Confirm that this is not lit.

```
            0:00
⇄  ►  CD-DA  01
```

Each press switches the repeat mode.

① **"⟳ 1"**
  one repeat
② **"⟳"**
  all repeat
③ **Off....**
  Repeat deactivated
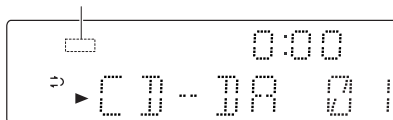
Setup for repeating all tracks in a disc   CD-DA   VIDEO CD (with PBC OFF → 18)   MP3 file

❶ **Confirm that the "PGM" indicator is not lit.**

PGM

❷ **Select "⟳".**

REPEAT

❸ **Start playback.**

CD ►/❚❚
SELECT

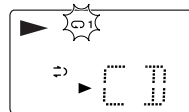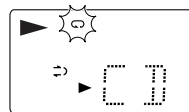When playing a MP3 file, press the **CD ►/❚❚** key repeatedly until "►" (play indicator) is displayed.

● If the "**PGM**" indicator is lit, turn it off by pressing the **PGM** key in stop mode to cancel the program mode.

Confirm that this is not lit.

```
            0:00
⇄  ►  CD-DA  01
```

Each press switches the repeat mode.

① **"⟳ 1"**
  one repeat
② **"⟳"**
  all repeat
③ **Off....**
  Repeat deactivated
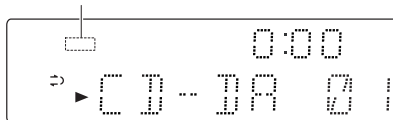
Setup for repeating selected tracks   CD-DA   VIDEO CD (with PBC OFF → 18)   MP3 file

❶ Program the track sequence according to steps 1 to 2 of "Listening to the desired sequence (PGM)".   → 29
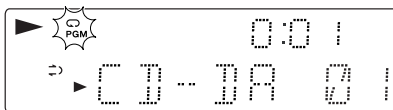
❷ Select " ↻ ".

REPEAT

❸ Start playback.

CD ▶/II
SELECT

Each press switches the repeat mode.

① **" ↻ 1"** one repeat
② **" ↻ "** all repeat
③ **Off....** Repeat deactivated

▶ PGM   0:01
↻ ▶ CD-DA 01

● All selected tracks will be repeated.

To stop repeated playback

Press the REPEAT key repeatedly until the repeat mode is switched off.

● The " ↻ " indicator turns off and playback according to the current CD player mode.

Playing tracks in a random order (RANDOM)   CD-DA   VIDEO CD (with PBC OFF → 18)   MP3 file

As the titles each time are selected randomly, the music can be enjoyed without getting tired of it.

A non-finalized CD-R or CD-RW cannot be played back.

Select the CD input.

❶ Confirm that the "PGM" indicator is not lit.

PGM

❷ Press the RANDOM key.

RANDOM

❸ Start playback.

CD ▶/II
SELECT

● If the "**PGM**" indicator is lit, turn it off by pressing the **PGM** key in stop mode to cancel the program mode.

Each press switches the modes as follows.

① **"RDM" on** (Random playback)
② **"RDM" off** (Normal playback)

▶ RDM   0:01
↻ ▶ CD-DA 09
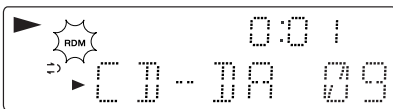
● Playback stops after each track has been played once.
● The random playback can also be repeated by pressing the **REPEAT** key.

To select another track in the middle of playing one

I◀◀ P.CALL   P.CALL ▶▶I
PREV.   NEXT
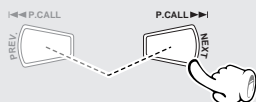
To cancel random playback

Press so that the "RDM" indicator is turned off.
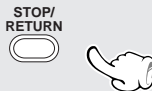
STOP/
RETURN

● The "**RDM**" indicator goes off and the playback stop.

Convenient recording methods

This unit provides the following recording features in addition to normal recording. Select the appropriate method according to the purpose of recording.

The tape deck of the unit can record signals only on Normal (Type I) tapes. It cannot record on High (Type II) and Metal (Type IV) tapes.

To record CD with a simplified method (CD-DA VIDEO CD (with PBC OFF → 18) → TAPE) → 34

All-track recording ➡ Records all tracks in a CD onto a tape.

Single-track recording ➡ Records only one CD track being played onto a tape.
(This is convenient for recording of desired tracks from a disc being heard for the first time.)

To record desired CD tracks by reordering them (CD-DA VIDEO CD (with PBC OFF → 18) → TAPE) → 35

Program recording ➡ Recording of programed tracks in the programed order.
(Convenient for recording only the desired CD tracks in the desired order.)

Note With recording onto tape, the track will be interrupted for the part of the guide tape at the tape reversal, where recording is not possible. Please use single-side recording if this is to be avoided.

One-touch edit recording (CD-DA | VIDEO CD (with PBC OFF → 18) →TAPE)

Records all tracks in a CD with a simple operation. (All-track recording)
Records a single CD track being played from the beginning. (Single-track recording)

The tape deck of the unit can record signals only on Normal (Type Ⅰ) tapes. It cannot record on High (Type Ⅱ) and Metal (Type Ⅳ) tapes.

Be sure to put the cassette deck in stop mode.

1 *Make preparation for recording.*

❶ **Perform steps 1 to 3 of the procedure in "Recording on TAPE".** → 26 ~ → 27

❷ **Ensure that the "PGM" and "RDM" indicators are not lit.**

❸ **Insert disc in the CD player.**

- If the "**PGM**" indicator is lit, turn it off by pressing the **PGM** key in stop mode to cancel the program mode.
- If the "**RDM**" indicator is lit, turn it off by pressing the **RANDOM** key in stop mode to cancel the random play mode.

2 *Check the current play mode of the CD player.*

All-track recording	Single-track recording
If it is in play mode, stop it. ■ [Tuning Mode]	**Select the desired CD track and play it.** ● When step **3** is performed in the middle of CD play-back, the current track will be recorded from the beginning. **(To record other tracks, repeat steps 2 and 3 for each track)**

3 *Start recording.*

O.T.E.

If you are operating the remote, the same effect as step **3** can be obtained by simply pressing the O.T.E. key to start recording.

● When either playback or recording stops, the other operation is stopped automatically.

To interrupt a recording

■
[Tuning Mode]

(Recording and playback will be stopped)

At the end of the recording
Cassette deck : Stop is executed after an unre-
corded portion of about 4 sec.
has been produced.

Program recording (CD-DA VIDEO CD (with PBC OFF → ⌊18⌋) → TAPE)

Desired CD tracks can be programed in the desired sequence and recorded onto a tape.

The tape deck of the unit can record signals only on Normal (Type I) tapes. It cannot record on High (Type II) and Metal (Type IV) tapes.

Be sure to put the cassette deck in stop mode.

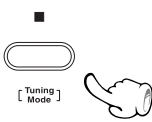## 1 Make preparation for recording.

❶ **Select the CD input.**
❷ **Ensure that the "RDM" indicators are not lit.**
❸ **Perform steps 1 to 3 of the procedure in "Recording on TAPE".** → ⌊26⌋ ~ → ⌊27⌋
❹ **Insert disc in the CD player.**

● If the "**RDM**" indicator is lit, turn it off by pressing the **RANDOM** key in stop mode to cancel the random play mode.

2 Program the desired sequence of CD tracks.

Perform steps ❶ and ❷ of the procedure in "Listening to the desired sequence (PGM)". → ⌊29⌋

● When the **PGM** key is pressed to cancel the edited contents, the entire editing contents will be erased. → ⌊29⌋
● Tracks programed beyond the available tape recording time will be interrupted in the middle.
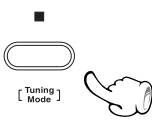
3 Start recording.

O.T.E.

If you are operating the remote, the same effect as step ❸ can be obtained by simply pressing the O.T.E. key to start recording.

● Recording starts from the first track in the program and ends after having recorded the entire programed tracks.
● Recording stops automatically when the program playback of CD has completed.
● When either playback or recording stops, the other operation is stopped automatically.

To interrupt a recording

■

[Tuning Mode]
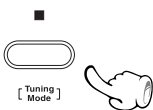
(Recording and playback will be stopped)

At the end of the recording

Cassette deck : Stop is executed after an unrecorded portion of about 4 sec. has been produced.

Playback of MP3 file

This unit can play MP3 file.
Please refer to the "Important notes on the MP3 file" below before playback of MP3 file.

What is MP3?

MP3 is the abbreviation of "MPEG1 Audio Layer 3". MPEG Audio is a compression specification that compresses the audio portion only. This audio compression method is used in DVD or Video CD, etc. The audio data has been compressed into about 1/10.

Important notes on the MP3 file

Acceptable medium

● The medium formats acceptable to this unit are ISO 9660. (The maximum total number of folders which can be recognized by this unit is 63 and the total number of files is 255.)
● When entering file and folder names, use alphanumeric characters only.
● This unit recognized and plays only MP3 file which have the MP3 filename extension (.MP3).

Settings for your MP3 encoder and CD writer

● When you use your MP3 encoder to compress audio data to an MP3 file, set the transfer bit rate of the encoder to fixed 128 kbps (Constant Bit Rate).
● Sampling frequency is 44.1 kHz.
● When you use your CD writer to record MP3 file, check Disc at once.

Sequence of playing MP3 files

MP3 files will be played in the sequence that the writing software had recorded. Therefore, it may be different between the sequence that you want to record and the sequence of playing. For some writing software, input "01" ~ "99", for example, before the file names in the sequence of playing and then record into a CD-R, etc, sometimes you may setup the sequence of playing.

Writing files onto a medium

When a medium containing MP3 data is loaded, the unit checks all the files on the medium. If the medium contains a lot of folders or non-MP3 file, therefore, it takes a long time until the unit starts playing MP3 file. In addition, it may take time for the unit to move to the next MP3 file or a file search or folder search may not be performed smoothly. You should not write non-MP3 file or unneeded folders along with MP3 file on the medium.

ID3 TAG display

ID3 TAG display is available only during MP3 playback. It allows you to see the song title and the artist name (maximum of 30 characters each).
● ID3 TAG display is available when you press the TIME DISPLAY key.
● If the MP3 disc has ID3 TAG data (Version 1.1), song title and artist name will be displayed on the TV screen and also scrolls across the display.
● If the MP3 disc does not have ID3 TAG or English data, "UNKNOWN" scrolls across the display.

● Kenwood is not responsible for playability of MP3 in any case due to recording condition such as PC performance, writing software, media ability or etc.
● When playing a MP3 file, the display of the track time might not increase consistently.

Selecting MP3 file playback

Selects the files to be played back directly regardless of the order in which it was written.
To playback files in the order they were recorded, see "Playback of CD-DA, MP3 file and the audio of VIDEO CD". → ⌐18⌐
The file search may take a while depending on the number of files and the state of the folder hierarchy.

A disc medium containing a non-closed session or a non-finalized disc medium cannot be played back.

Connect the related equipment under reference to "Connection of Other Accessories" → ⌐8⌐
Before operating, set the NTSC/PAL switch of this unit according to the TV format (country or region) and disc. → ⌐15⌐

1 Make preparation for the playing.

❶ **Select the CD input.**
❷ **Insert disc in the CD player.**

- Folder names (5 folders) are displayed on the TV screen.
- Folder name are displayed with 20 characters.
- File name are displayed with 15 characters.
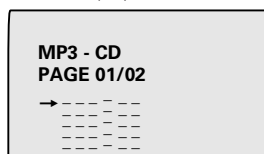
2 Select the required folder/file.

❶ **Press the |◀◀ or ▶▶| key on the remote control unit to select the MP3 folder or file in the same layer.**

   ▶▶| key : Moves the next folder or file in the same layer.
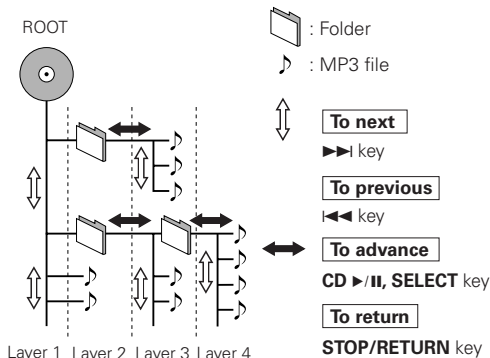   **|◀◀ key : Moves the previous folder or file in the same layer.**

- If there are more than 5 folders / files in the disc, press the ▶▶| key repeatedly until the display will be switched.

When a folder is selected

Simply selecting a folder can play no file. Go to the next hierarchy level and select the desired file.

❷ **Move to the layer.**

   CD ▶/Ⅱ, SELECT key : Advances to the lower layer.
   STOP/RETURN key : Returns to the higher layer.

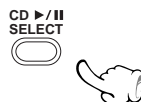| To advance | CD ▶/Ⅱ SELECT | To return | STOP/ RETURN |

- Files in the next folder will be played back when no files exist in the selected folder.

❸ **Press the |◀◀ or ▶▶| key to select the required file, and press the CD ▶/Ⅱ key, playback starts.**

- The files after the selected file will be played back in the sequence in which they were recorded.

Menu is displayed on the screen.

```
MP3 - CD
PAGE 01/02

→ − − − − − −
  − − − − − −
  − − − − − −
  − − − − − −
  − − − − − −
```

folder or file names

Example of a medium's folder / files hierarchy

ROOT   : Folder
                        ♪ : MP3 file

To next
▶▶| key

To previous
|◀◀ key

To advance
CD ▶/Ⅱ, SELECT key

To return
STOP/RETURN key

Layer 1 Layer 2 Layer 3 Layer 4

When a file is selected

❷ **Press the CD ▶/Ⅱ to start playback.**

CD ▶/Ⅱ
SELECT

- The files after the selected file will be played back in the sequence in which they were recorded.

Playing back a VIDEO CD using the menu

With a disc incorporating PBC, a menu is displayed on the TV screen so that you can select the desired tracks to be played with simple interactive operations.
Before operating, set the NTSC/PAL switch of this unit according to the TV format (country or region) and disc. → 15

Key error display

If a wrong key is pressed when operating the unit, a hand mark is displayed at the top left corner of the TV monitor screen.
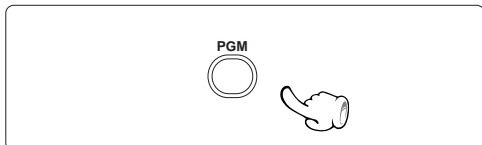
Note

When PBC is ON and a VIDEO CD (with PBC) is played, the playback control functions, including the menu display, operate automatically. A conventional music CD or VIDEO CD without PBC can be played normally even when the "PBC" indicator is lit.
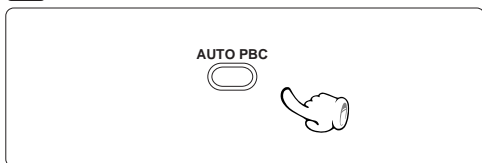
Select the CD input.

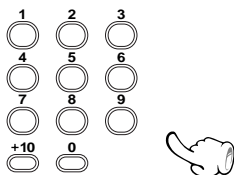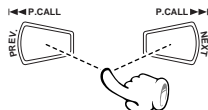| Press in stop mode |

1 Confirm that the "PGM" indicator is not lit.

PGM

● If the "**PGM**" indicator is lit, press the **PGM** key to turn it off.
Confirm that this is not lit.

```
              0:00
  ⇄ ▶ V CD        01
EX.BASS
```

2 Select "PBC ON".

AUTO PBC

Each press switches the modes as follows.

PBC ON
PBC OFF   Lights

```
              0:00   P.B.C.
  ⇄ ▶ P B C  O N
EX.BASS
```

3 Press the CD ▶/II key.

4 Select items on the menu display.

Note

The menu display, the operation method, and the operation key depend the disc being played. For details, refer to the instructions enclosed with your disc.

To select menu items (scenes):

1 2 3
4 5 6
7 8 9
+10 0

Press the numeric key as shown below....
  To select track No. 5 : 5
  To select track No. 17 : +10 x 1, 7

To change the display:

I◀◀ P.CALL   P.CALL ▶▶I
PREV.   NEXT

● When several menus (scenes) can be selected in each level, pressing the **PREV.** or **NEXT** key switches the display.
● To operate a menu with a hierarchical structure, see "**When the menu has a hierarchical structure**". → 39
● A VIDEO CD requires a little time for screen switching, etc. after key operation.

Returning to the menu display

STOP/
RETURN
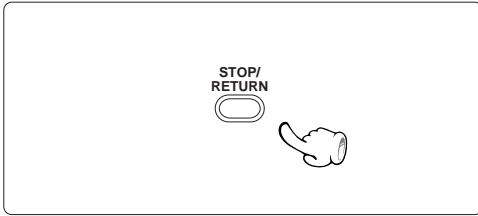
Ending the menu playback

STOP/
RETURN

Keep the **STOP** key depressed for more than 2 seconds.

Playing VIDEO CDs with the PBC function

Operation key and display examples for VIDEO CD playback
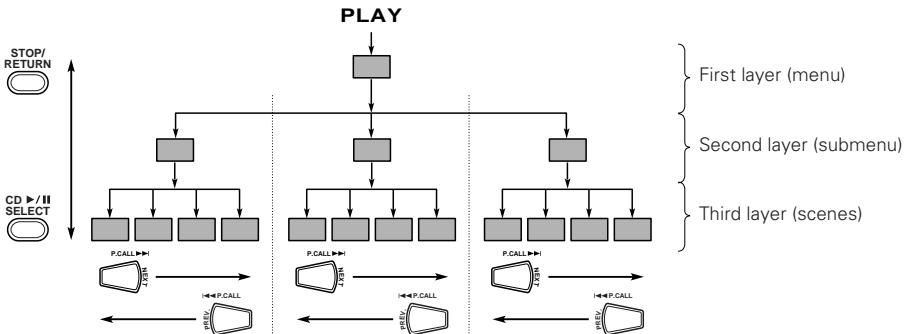
Software jacket indication	►	⌕●	⏮	⏭
KENWOOD operation key	SELECT	RETURN	PREV.	NEXT

● The jacket indications depend on the software and may differ from the above examples.

When the menu has a hierarchical structure

When items are selected on the menu display during playback of a VIDEO CD (with PBC), another menu with more detailed choices may be displayed. A number of menus may be connected in this way in steps, and this is called a hierarchical structure. The desired scene can be reached by repeated item selection on the menu display.

Example of a hierarchical structure

PLAY

STOP/
RETURN

First layer (menu)

Second layer (submenu)

CD ►/ⅠⅠ
SELECT

Third layer (scenes)

P.CALL ►►

I◄◄ P.CALL

| To advance |

When an item is selected on the menu display using the CD ►/ⅠⅠ, SELECT key or the numeric key, you advance to the next lower menu layer. When the advance destination is the "scene" to be played, the contents will be played.
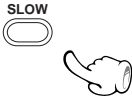
CD ►/ⅠⅠ
SELECT

| To return |

Each time the STOP/RETURN key is pressed, you return to the next higher layer of the hierarchy.

STOP/
RETURN

Slow-motion playback

To play a VIDEO CD in slow motion, press the SLOW key during playback.

SLOW

Each press of the SLOW key changes the speed.

① **Slow 1** → ② **Slow 2** → ③ **Slow 3**

● There will be no sound during slow-motion playback.
● To resume normal playback press the **CD ▶/ǁ** key of the CD player.

Single-frame playback

To play a VIDEO CD frame by frame, press the STEP key during playback.

STEP

● Each press of the **STEP** key advances the picture by one frame.
● There will be no sound during single-frame playback.
● To resume normal playback, press the **CD ▶/ǁ** key of the CD player.

Freezing only the image

When the FREEZE key is pressed during playback of a VIDEO CD, only the image is frozen while the audio continues to be played. The freeze function is cancelled and return to the normal playback image automatically when the corresponding menu (scene) is changed.

FREEZE

● To cancel the frozen image, press the **FREEZE** key or **CD ▶/ǁ** key.

Forward and backward search

To quickly advance or reverse the playback picture of a VIDEO CD, press the ◀◀ or ▶▶ key during playback.

Backward search ◀◀ ——— TUNING ——— ▶▶ Forward search
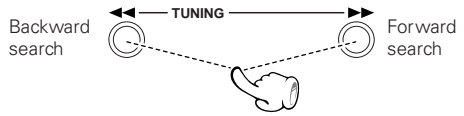
During forward search

Each press of the ▶▶ key changes the search speed.

① **FF x1** → ② **FF x2** → ③ **FF x3** → ④ **FF x4**

During backward search

Each press of the ◀◀ key changes the search speed.

① **FB x1** → ② **FB x2** → ③ **FB x3** → ④ **FB x4**

● There will be no sound during forward or backward search.
● To resume normal playback, press the **CD ▶/ǁ** key of the CD player.
● The setting contents are displayed on the display section and the TV screen.

Switching the audio output

When playing a disc and MP3 files with multiple audio channels (such as Karaoke discs or bilingual discs), you can select the desired audio.

MULTIPLEX
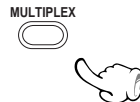
Each press changes the setting cyclically.

① **STEREO .... Normal playback**
② **MONO - L ..... Left channel only**
③ **MONO - R .... Right channel only**

● The setting contents are displayed on the display section and the TV screen.
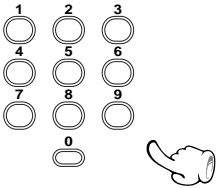
Time search function

To jump to a specific location of the track be-
ing played, specify the time of that location.

● Stop VIDEO CD menu playback if in progress.
● Cancel "**PGM**" in advance.

❶ Play the desired track and press the TIME
SEARCH key.

TIME SEARCH

❷ When "GO TO ＿＿：＿＿" (＿＿：＿＿ refers to the
total time of the entire track) is displayed on
the TV screen, specify the time.

1	2	3
4	5	6
7	8	9
	0	

Press the numeric key as shown below....

To specify 3 minutes 30 seconds:

0 3 3 0

To specify 15 minutes 25 seconds:

1 5 2 5

● When key input is completed, playback starts at the
disc position specified by the time.

Resume function

To resume playback from the location where
playback was last stopped, press the RESUME
key.

● Cancel "**PGM**" in advance.
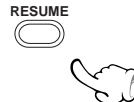
❶ Stop playback.
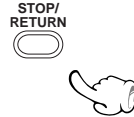
STOP/
RETURN

If the "PBC" indicator is not lit, press the STOP key
once.
If the "PBC" indicator is lit, keep the STOP key
depressed for more than 2 seconds.
"PBC" is deactivated when you press the STOP key
during PBC menu playback.
The resume function may not precisely work after
stopping playback of a VIDEO CD with PBC.

❷ Press the RESUME key.

RESUME

● When the input selection or disc is changed or the
power is turned off, memory is cleared and the
resume function becomes invalid.

Using the Digest functions

INTRO SCAN

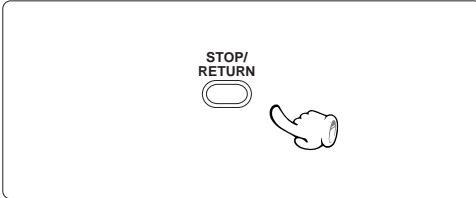Plays the first ten seconds of each track of a CD-DA or VIDEO CD in turn.

DIGEST DISC

The first images of nine tracks of a VIDEO CD are displayed as 9 mini screens at a time on the TV screen.

DIGEST TRACK

A single track of a VIDEO CD is divided into 9 parts and the first image of each part is displayed as one of 9 mini screens.

Select the CD input.

1 *Press the STOP key.*

STOP/
RETURN

● To stop playback during VIDEO CD playback (with PBC ON), keep the **STOP** key depressed for more than 2 seconds.
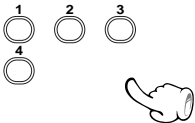
2 *Select the desired Digest function.*

❶ **Display the menu.**

DIGEST

The Digest menu is displayed on the screen.

```
1. INTRO SCAN
2. DIGEST DISC
3. DIGEST TRACK
4. EXIT DIGEST MENU
```

❷ **Select the desired function with a numeric key (1 to 4).**

1 2 3
4

● The selected Digest function is executed.
● The menu items "**2. DIGEST DISC**" and "**3. DIGEST TRACK**" can be selected only for VIDEO CD playback.

3 *Select the desired track number.*
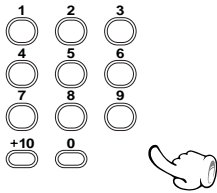
IN INTRO SCAN

Pressing the numeric key for the desired track resumes normal playback mode, and playback of the selected track begins.

```
  1     2     3
  4     5     6
  7     8     9
 +10    0
```
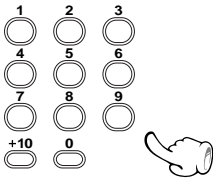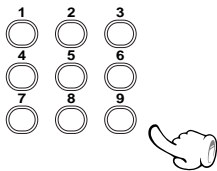
IN DIGEST DISC

Pressing the numeric key for the desired track number displayed on the screen resumes normal playback mode, and playback of the selected track begins.

```
  1     2     3
  4     5     6
  7     8     9
 +10    0
```

IN DIGEST TRACK

Pressing the numeric key for the desired scene number displayed on the screen resumes normal playback mode, and playback begins from the selected scene.

```
  1     2     3
  4     5     6
  7     8     9
```

1	2	3
4	5	6
7	8	9

● To view the succeeding tracks (when there are ten or more tracks) on the mini screens, press the **NEXT** key while mini screens are displayed. To return to the previous group, press the **PREV.** key.
● When you press the **STOP** key while mini screens are displayed, the mini screens are cleared, and the CD player enters the stop mode.
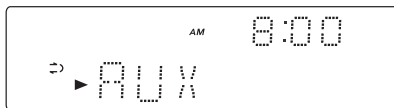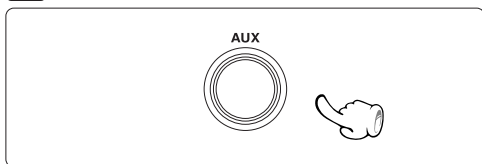
1	2	3
4	5	6
7	8	9

● To view the next track on the mini screens, press the **NEXT** key while mini screens are displayed. To display the previous track, press the **PREV.** key.
● When you press the **STOP** key while mini screens are displayed, the mini screens are cleared, and the CD player enters the stop mode.
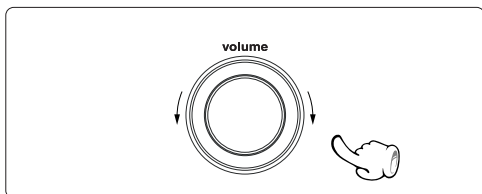
Listening to an AUX input source

1 Select AUX (external input).

AUX

AM 8:00
↩ ► AUX

2 Play the connected equipment.
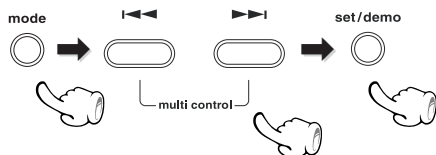
3 Adjust the volume.

volume

Adjusting the AUX Input Level

This adjusts the input level for the external equipment (video deck etc.) connected to the AUX input terminal. Adjust so that the volume of the AUX input source sounds at an equivalent level to the CD.
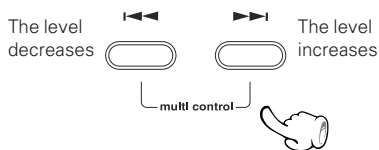
❶ Press the AUX key.

❷ Select "INPUT ?".

mode   ◄◄   ►►►   set/demo

multi control

(Press the set/demo key while the "?" mark is blinking.)

❸ Adjust the input level.

The level decreases   ◄◄   ►►►   The level increases

multi control

❹ Set it.   set/demo

Each press switches the display contents.

┌► "TAPE RVS"
│ "INPUT   ?"
│ "TIMER   ?"
│ "TIME ADJUST ?"
└► "APS   ?"

- -
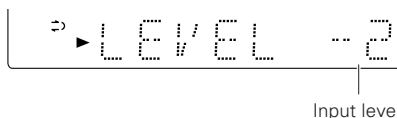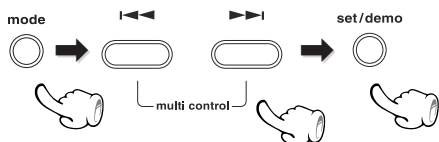
↩ ► LEVEL -2

Input level

● Adjustment is possible from the range of – 3 to + 2.
● Adjusting the input level control also varies the recording level from the input source connected to the AUX input jacks.
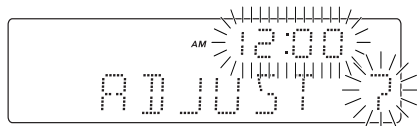
Clock adjustment

As the clock is not only used to show the time of the day but also used in timer operations, be sure to set the clock in advance.

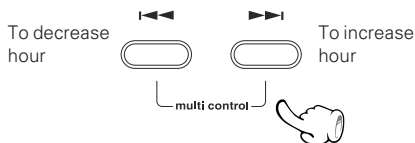## 1 Activate the Clock adjustment mode.

❶ Select " TIME ADJUST ?"

mode ➡ |◀◀   ▶▶| ➡ set/demo

multi control

(Press the set/demo key while the "?" mark is blinking.)

AM 12:00
ADJUST ?

● The time display starts to blink.

2 Adjust the hour.

❶ Select the figure of hour.

To decrease hour |◀◀   ▶▶| To increase hour

multi control

❷ Set it.

set/demo

Example: Adjustment to 8:07
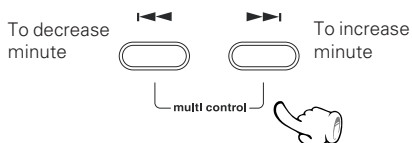
AM 8:00
ADJUST
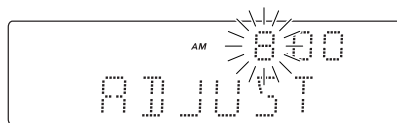
● Press the **set/demo** key. The hour is entered and the minute display starts to blink.

3 Adjust the minute.

❶ Select the figure of minute.
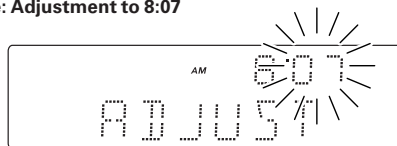
To decrease minute |◀◀   ▶▶| To increase minute

multi control

❷ Set it.

set/demo

Example: Adjustment to 8:07

AM 8:07
ADJUST

● If you make a mistake, restart from the beginning.
● When the time of day has been set by pressing the **set/demo** key, the display shows "**COMPLETE**".
● After a power failure or the power cord has been unplugged, the time set will be erased. You have to set the time again when unit is switched on.
● When the ■ key is pressed while the power is in the standby mode, the time of the day will be displayed for 5 seconds.

Timer operation

Sleep timer (SLEEP)

The unit is turned OFF automatically after the specified period has elapsed.

Timer playback, timer recording (PROG 1, PROG 2) → 47

Playback of the selected input source or recording of the TUNER or AUX input starts at the specified time.

AI timer playback (PROG 1, PROG 2) → 47

When timer playback starts, the volume level increases gradually until the set volume level is reached.

Sleep timer (SLEEP)

Set the number of minutes after which the unit is to be turned OFF.

Connect the related equipment under reference to "System connection" → 6 ~ → 8

| Remote control unit only |

Set the time.

SLEEP

The system has been set up so that the display is dimmed automatically while the sleep timer is activated.

- The unit is turned OFF automatically after the set time has elapsed.
- Each press increases the timer period by 10 minutes. The sleep timer can be set up to 90 minutes.

   10 → 20 → 30 ..... 70 → 80 → 90 → Cancel → 10 → 20 .....

   Sleep timer indicator lights
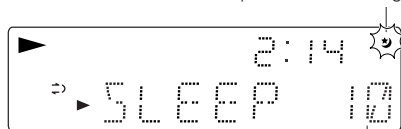
   Duration for sleep timer

- Press the **SLEEP** key while the sleep timer is activated to check the remaining time.

To cancel

Turn the unit OFF or press the SLEEP key until the sleep timer is canceled.

Setting the timer program (PROG. TIMER)

In each of PROG 1 and PROG 2, the timer data including the operating period and played contents can be program and set to be activated or deactivated.

A non-finalized CD-R or CD-RW cannot be played back.

Adjust the clock before setting the timer → 45
Connect the related equipment under reference to "System connection" → 6 ~ → 8

1 *Make preparations for the play (recording).*

To listen to CD	To listen to tape	For recording
Insert a disc. (CD-DA only) (Program playback is not possible.)	Insert a tape.	Make preparations for recording. → 26 ~ → 28

To listen to radio	Playing the auxiliary input source	
The station should be preset prior. → 24	Make timer setting of the component connected to the AUX input jacks.	

● Two timer settings can be reserved independently in two programs PROG 1 and PROG 2.
● Please make reservations with an interval of at least one minute, so that the operation times of PROG 1 and PROG 2 do not overlap.

2 *Set the timer setting program number.*

❶ Select "TIMER   ?".

mode |◀◀   ▶▶| set/demo

multi control

(Press the set/demo key while the "?" mark is blinking.)

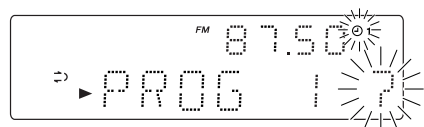❷ Select "PROG 1 ?" or "PROG 2 ?".

|◀◀   ▶▶|

multi control

❸ Set it.

set/demo

Each press switches the display contents.

"TAPE RVS"
"AUTO PRESET   ?"
(Only when the TUNER input is selected)
"INPUT   ?"
(Only when the AUX input is selected)
"TIMER   ?"
"TIME ADJUST   ?"
"APS   ?"

- -

Each press switches the display contents.

① "PROG 1 ?"
② "PROG 2 ?"

- -

FM 87.50
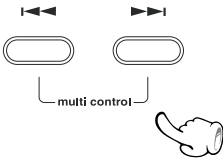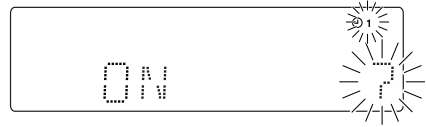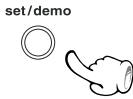► PROG 1 ?

● The previously set contents are displayed. (If you do not want to change them, simply press the **set/demo** key.)
● When a timer setting has already been made in the selected timer, the setting will be overwritten by the new setting.

47 EN

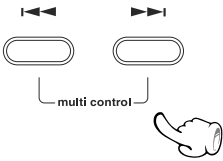# 3 Select the program timer ON/OFF.
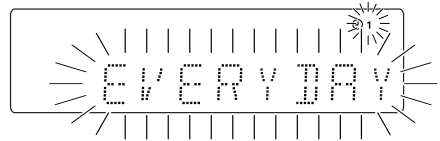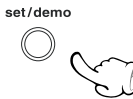
❶ Select "ON ?" or "OFF ?"

|◀◀   ▶▶|
└ multi control ┘

```
 ON          ?
```

● If OFF is selected, the key function return to ordinary mode.

❷ Set it.   set/demo

4 Select ONETIME or EVERYDAY execution of the programed timer.

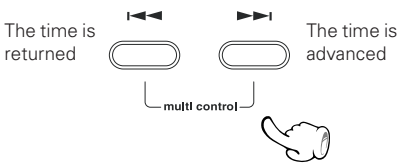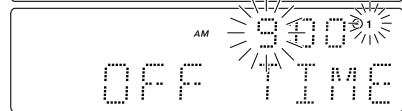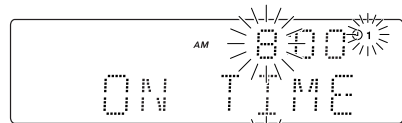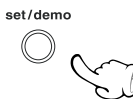**❶ Select "ONETIME" or "EVERYDAY"**

|◀◀   ▶▶|
└ multi control ┘

```
 EVERYDAY
```

● In the ONETIME mode, the timer is set OFF after execution.
● In the EVERYDAY mode, the timer is executed every-day.

❷ Set it.   set/demo

5 Set the ON time then the OFF time.

❶ Adjust the time.

The time is returned |◀◀   ▶▶| The time is advanced
└ multi control ┘

```
        AM  8:10
 ON TIME
```

```
        AM  9:00
 OFF TIME
```

● For each of the ON time and OFF time, enter the figure of "hour" by performing steps ❶ and ❷ then enter the figure of "minute" in the same manner.
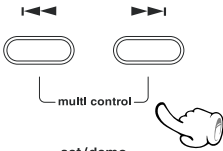● If you make a mistake, press the **mode** key and restart from step **2**.

❷ Set it.   set/demo

6 *Make the desired reservation.*

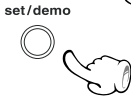| **For timer playback or AI timer playback** |
|---|

❶ Select the mode.

  (1) Select "PLAY" or "AI PLAY".

    ① **"PLAY"**
       (Timer play)
    ② **"REC"**
    ③ **"AI PLAY"**
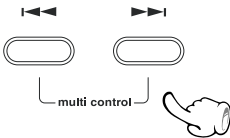   (Timer play with gradually increasing volume)

    |◀◀   ▶▶|

    multi control

  (2) Set it.   set/demo

❷ Adjust the volume level

  (1) Adjust. |◀◀   ▶▶|

    multi control

● When "**PLAY**" is selected, the timer playback will start at the set volume level.
● When "**AI PLAY**" is selected, the timer playback will start at volume 0 and increase to the set volume level.
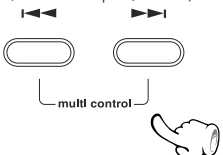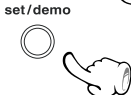
  (2) Set it.   set/demo
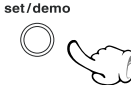
❸ Select the input source.

  (1) Select the source to be played.

    ① **"TUNER"**
       (Broadcasts)
    ② **"CD"**
    ③ **"TAPE"**
    ④ **"AUX"**
       (External input / video, etc.)

    |◀◀   ▶▶|

    multi control

  (2) Set it.   set/demo

For timer recording

❶ Select the mode.

  (1) Select "REC".

    ① **"PLAY"**
    ② **"REC"**
    ③ **"AI PLAY"**

    |◀◀   ▶▶|

    multi control

  (2) Set it.   set/demo

❷ Adjust the volume level

  (1) Adjust. |◀◀   ▶▶|

    multi control
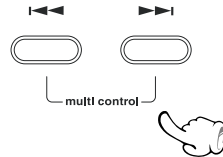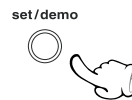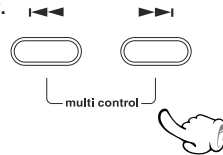
● When "**REC**" is selected, the timer recording will start at the set volume level.

  (2) Set it.   set/demo
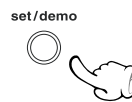
❸ Select the input source.

  (1) Select what is to be recorded.

    ① **"TUNER"**
       (Broadcasts)
    ② **"AUX"**
       (External input / video, etc.)
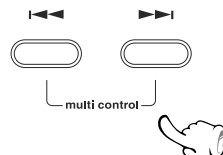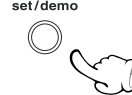
    |◀◀   ▶▶|

    multi control

  (2) Set it.   set/demo

❹ **Select the broadcast station (only when TUNER is selected above).**

   (1) Select the preset station No.

             I◀◀   ▶▶I

             multi control

   (2) Set it.

            set/demo

● When the timer setting is completed by pressing the **set/demo** key, "**COMPLETE**" is displayed.

❹ **Select the broadcast station (only when TUNER is selected above).**

   (1) Select the preset station No.

             I◀◀   ▶▶I

             multi control
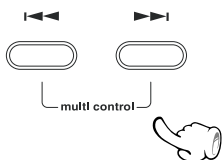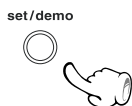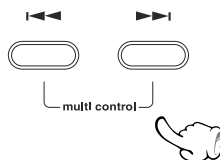
   (2) Set it.
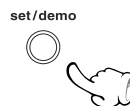
            set/demo

● When the timer setting is completed by pressing the **set/demo** key, "**COMPLETE**" is displayed.

Note **To check or modify the reservation contents, restart the timer reservation from the beginning.**

7 *Put the unit in standby mode.*

           ⏻
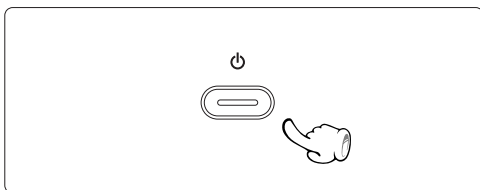
● When the unit enters the Standby mode, the **standby/timer** indicator lights in green.
● If there is a power failure or the power cord is unplugged after the timer reservation has been activated, the **standby/timer** indicator blinks in green. In this case, the clock setting should be restarted from the beginning.

Important Items

Maintenance

Cleaning the head section

Cotton swab

Capstan

Head

Pinch roller

Tape guides
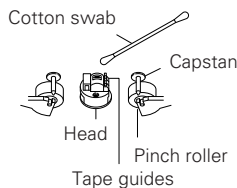
Cleaning the heads and peripheral components

For maintaining the best condition of the deck and for longer service life, always keep the heads, capstan and pinch roller clean. To clean them, perform the following:

1. Open the cassette holder.
2. Using a cotton swab dipped in alcohol, clean the head, capstan and pinch roller carefully.

Demagnetizing the head

When the recording / playback head is magnetized, the sound quality will deteriorate. In such a case, demagnetize the head using a commercially available demagnetizer (head eraser).

POINT

● There are precisely aligned parts around the heads, including the tape guides. When cleaning, pay special attention so as not to apply shock to them.

Maintenance of the unit

When the front panel or case becomes dirty, wipe with a soft, dry cloth. Do not use thinner, benzine, alcohol, etc. for these agents may cause discoloration.

In regard to contact cleaner

Do not use contact cleaners because it could cause a malfunction. Be specially careful not to use contact cleaners containing oil, for they may deform the plastic component.

Reference

Caution on condensation

Condensation (of dew) may occur inside the unit when there is a great difference in temperature between this unit and the outside.
This unit may not function properly if condensation occurs. In this case, leave the unit for a few hours and restart the operation after the condensation has dried up.
Be specially cautious against condensation in a following circumstances:
When this unit is carried from one place to another across a large difference in temperature, when the humidity in the room where this unit is installed increases, etc.

Note related to transportation and movement

Before transporting or moving this unit, carry out the following operations.

❶ **Remove the CD from the unit.**

❷ **Press the CD ▶/❚❚ key.**

```
NO DISC
```

❸ **Wait for some time and verify that the display appears as above.**

❹ **Wait a few seconds and turn the unit OFF.**

Memory backup function

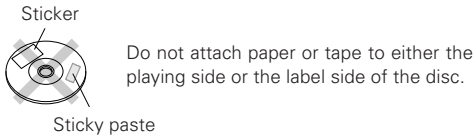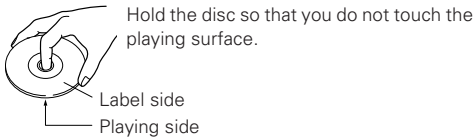**Stored contents which are cleared immediately when power plug is unplugged from power outlet :**

Clock display

Stored contents which will back-up after power plug is unplugged from power outlet:
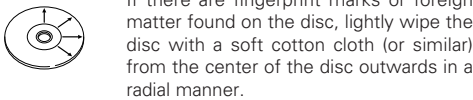
Preset station, Program Timer

Disc handling precautions

Handling

Hold the disc so that you do not touch the playing surface.

Label side
Playing side

Sticker

Do not attach paper or tape to either the playing side or the label side of the disc.

Sticky paste

Cleaning

If there are fingerprint marks or foreign matter found on the disc, lightly wipe the disc with a soft cotton cloth (or similar) from the center of the disc outwards in a radial manner.

Storage

When a disc is not to be played for a long period of time, remove it from the player and store it in its case.

Never play a cracked or warped disc

During playback, the disc rotates at high speed in the player. Therefore, to avoid danger, never use a cracked or deformed disc or a disc repaired with tape or adhesive agent. Please do not use discs which are not round because they may cause malfunction.

Discs which can be played with this unit

CD (12 cm, 8 cm), CD-R, CD-RW, VCD, and the audio part of CDV, CD-G, CD-EG and CD-EXTRA. Use discs that comply with the IEC standard, for example a disc carrying the marking on the label surface.

Disc accessories

The disc accessories (stabilizer, protection sheet, protection ring, etc.) which are marketed for improving the sound quality or protecting discs as well as the disc cleaner should not be used with this system because they may cause malfunction.

Notes on cassette tape

Safety tab (accidental erasure prevention tab)

After an important recording has finished, break the safety tab to prevent the recorded contents from being erased or recorded on accidentally.

For A side
For B side
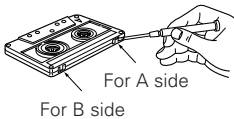
To re-record
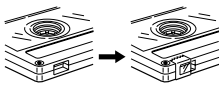
Apply tape only to the position where the tab has been removed.

To store cassette tapes

Do not store tapes in places which are subjected to direct sunlight, or near equipment that generates heat. Keep the cassette tapes away from any magnetic field.

When there is slack in the tape

In such a case, insert a pencil into the reel hole and wind the reel hub to remove the slack.

● **Do not use an endless tape, as this could damage the mechanism of the unit.**

Do not use a cassette with more than 90-minute recording time, for the tape used in such a cassette is very thin and tends to cause problem such as entanglement around the pinch roller or could be easily cut off.

WARNING NOTICE:

In most cases it is an infringement of copyright to make copies of tapes or discs without the permission of the copyright owners. Anyone wishing to copy commercially available tapes or disc should contact the mechanical copyright protection society limited or the performing rights society limited.

In case of difficulty

What seems to be a malfunction is not always so. Before calling for service, check the following table according to the symptom of your trouble.

Operation to reset

The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while unit is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

● Please note that resetting the microcomputer clears the contents stored in and it returns to condition when it left the factory.

Unplug the power cord from the power outlet, then while holding the ⏻ key depressed, plug the power cord again.

⏻
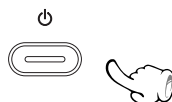
After resetting the microcomputer, the display will show as follow:

RESET

Amplifier section/Speakers

Symptom	Remedy
Sound is not produced.	● Connect properly referring to "**System connections**". ➞ ⬜6 ● Adjust to a required volume. ➞ ⬜16 ● Switch MUTE OFF. ➞ ⬜17 ● Unplug the headphone plug.
The "standby/timer" indicator blinks in red and no sound is output.	● A speaker cord is short-circuited. Turn power off and re-connect the speaker cord.
The "standby/timer" indicator blinks in green.	● Adjust the present time again. ➞ ⬜45 ● Set the timer ON/OFF time properly ➞ ⬜48
No sound from the headphones.	● Insert correctly. ➞ ⬜17 ● Adjust to a required volume. ➞ ⬜16
Sound is not produced from the left or right speakers.	● Connect properly referring to "**System connections**". ➞ ⬜6
The clock display blinks without changing the figures.	● Adjust the present time again. ➞ ⬜45
Timer operation is not possible.	● Adjust the present time referring to "**Clock adjustment**". ➞ ⬜45 ● Set the timer ON time and OFF time. ➞ ⬜48

Remote control unit

Symptom	Remedy
Remote control operation is not possible.	● Replace with new batteries. ➞ ⬜13 ● Operate the unit inside the remote controllable range. ➞ ⬜13

Tuner section

Symptom	Remedy
Radio stations cannot be received.	● Connect antennas. →⑦ →⑧ ● Select a band. →㉓ ● Tune to the frequency of the desired station. →㉓
Noise interferes.	● Install the outdoor antenna in an apart position from the road. ● Switch the suspected electric appliance OFF. ● Install the TV or the system at an increased distance between them.
A station has been preset but it cannot be received by pressing the P.CALL key.	● Preset stations with tunable frequencies. →㉔ ● Preset stations again. →㉔

CD player section

Symptom	Remedy
A CD is placed in the player but it cannot be played.	● Place the disc properly, with the label side facing upward. ● Clean the disc referring to "**Disc handling precautions**". →�52 ● Refer to "**Caution on condensation**" and remove the condensation by evaporation. →51 ● A non-finalized CD-R or CD-RW cannot be played back.
Sound is not produced.	● Press the **CD ▶/ⅠⅠ** key. →⑱ ● Clean the disc referring to "**Disc handling precautions**". →52
Sound skips.	● Clean the disc referring to "**Disc handling precautions**". →52 ● Install the unit in a place not subject to vibrations.
The upper and lower parts of the playback picture of a VIDEO CD are missing or blackened.	● Select the correct video format. →⑮ ● Check the video format of the VIDEO CD or the monitor. →⑮
Picture is not produced.	● Replace by a VIDEO CD disc. ● Press the **CD ▶/ⅠⅠ** key. →⑱ ● Operate the TV correctly. Refer to "**Connection of Other Accessories (Commercially Available Parts)**" and connect the video cord correctly. →⑧ ● Clean the disc refering to "**Disc handling precautions**". →52 ● Try another disc.
Menu playback is not possible.	● Menu playback is not possible for a disc without PBC. ● Press the **AUTO PBC** key on the remote control unit to select "**PBC ON**". →㊳

Some CD-R and CD-RW discs may not be playable on this unit even if it has been finalized.

Cassette deck section

Symptom	Remedy
Sound cannot be produced by pressing the play key.	● Clean the head referring to "**Maintenance**". → 51 ● The tape is wound too tight due to irregular winding. ● Play a recorded tape.
No operation occurs even when an operation key is pressed.	● Press operation keys in more than a few seconds after closing the cassette holder. → 21 ● Change the tape transport direction or reverse the tape insertion orientation. → 21
The cassette holder cannot be opened by pressing "⏏ push open".	● Press in stop mode.
Sound is harsh or high frequencies are not re-produced.	● Clean the head referring to "**Maintenance**". → 51 ● Try another tape.
Sound is distorted.	● The recording level is not set properly (when the AUX input is recorded). Adjust the AUX input level. → 44
Noise is noticeable.	● Demagnetize the head referring to "**Maintenance**". → 51 ● Install the system at a distance from other electric appliances and TV. ● Set the **TAPE EQ.** to on. → 22
Sound vibrates.	● Clean the head referring to "**Maintenance**". → 51 ● Wind the tape again by fast forwarding, rewinding or playing from an end to the other. → 21 → 22
Recording cannot be started by pressing the record key.	● Use a cassette with an unbroken recording protect tab or block the hole. → 52 ● Close the holder completely. → 21 ● Set the input selector to the source to be recorded. → 27 ● Change the tape transport direction or reverse the tape insertion orientation. → 21

Displayed messages and actions to be taken against them

Displayed Message	Meaning
ERROR	● The disc is abnormal (causing a trouble such as impossibility of reading). Replace it with a normal disc.
NO DISC	● No disc is loaded. ● The loaded CD-R or CD-RW disc has not been finalized.
NOT AUDIO	● The disc or the signal recoded in it is incompatible with this unit. This is not malfunction of this unit.
PGM FULL	● An attempt is made to select a 33rd track during programing of CD.
PGM MODE	● An attempt is made to start random playback in the program mode. Exit from the program mode before random playback. → 30
PROTECT	● The cassette in use is protected by breaking the erasure protection tab. → 52
RDM MODE	● An attempt is made to perform O.T.E. recording while the unit is in the CD random play mode. Exit from the random play mode. → 32
UNKNOWN	● The disc is of the type that cannot be played back with this unit. ● The disc does not contain MP3 files. Replace it with a disc containing files that can be played back with this unit.

Specifications

Main unit

[Amplifier section]

Rated output power during STEREO operation
  (1 kHz, 10% T.H.D., at 6 Ω) ....   50 W + 50 W
Frequency response
  AUX .... 30 Hz~100 kHz (0 dB ~ -3dB)

[Tuner section]

FM tuner section
  Tuning frequency range .... 87.5 MHz ~ 108 MHz

AM tuner section

(For Australia)
  Tuning frequency range .... 531 kHz ~ 1,602 kHz

(For other countries)
  Tuning frequency range
    9 kHz step .... 531 kHz ~ 1,602 kHz
    10 kHz step .... 530 kHz ~ 1,610 kHz

[CD player section]

Laser .... Semiconductor laser
D/A Conversion .... 16 Bit
Over sampling .... 8 fs (352.8 kHz)
Laser wave length .... 760 - 800 nm
Laser power class .... Class 3A (IEC)
Digital output (Optical) .... – 15 dBm ~ – 21 dBm
                                   (Wave length 660 nm)
Video Output format .... NTSC/PAL
Video Output level .... 1 Vp-p (75 Ω)

[Cassette deck section]

Track .... 4-track, 2-channel stereo
Recording system .... AC bias system
                                   (Frequency: 105 kHz)
Heads
  Playback/ recording head 1
  Erasing head 1
Wow and flutter .... 0.2 % (W.R.M.S.)
Fast winding time .... Approx. 100 seconds
                                   (C-60 tape)

[General]

Power consumption .... 120 W
Dimensions .... W : 180 mm (7-1/16")
                             H : 255 mm (8-7/16")
                             D : 335 mm (13-3/16")
Weight (net) .... 5.4 kg (11.9 lb)

Speakers

Enclosure ..... Bass-reflex type, magnetically shielded
Speaker configuration
  Woofer .... 120 mm, cone type
  Tweeter .... 25 mm, balanced dome type
Impedance .... 6 Ω
Maximum input level .... 50 W
Dimensions .... W : 150 mm (5-7/8")
                             H : 255 mm (10-1/16")
                             D : 213 mm (8-3/8")
Weight (net) .... 2.5 kg (5.5 lb) (1 piece)

Notes

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
● Sufficient performance may not be exhibited at extremely cold locations (where water freezes).

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____   Serial Number _____